Colour Television **Chassis**

L01.1E
AB

Service
Service
Service

Service Manual

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PHILIPS

1. Technical Specifications, Connections and Chassis Overview

Note: Described specifications are valid for the *whole* product range.

1.1 Technical Specifications

1.1.1 Reception

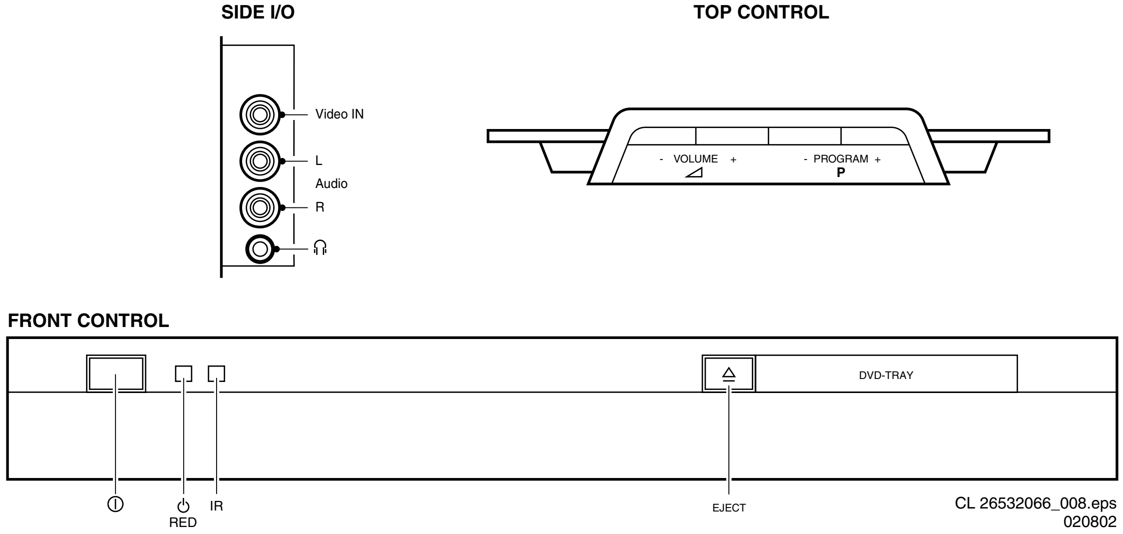
Tuning system	: PLL
Colour systems	: PAL B/G, D/K, I
	: SECAM B/G, L/L’
Sound systems	: FM/AM-mono
	: FM-stereo (2CS)
	: NICAM
	: FM radio (10.7 MHz)
A/V connections	: PAL BG
	: SECAM L/L’
	: PAL 60 (playback only)
	: NTSC 3.58 (playback only)
	: NTSC 4.43 (playback only)
Channel selections	: 100 channels
	: UVSH
IF frequency	: 38.9 MHz
Aerial input	: 75 Ω, Coax

1.1.2 Miscellaneous

Audio output (RMS)	: 2 x 5 W stereo
Mains voltage	: 220 - 240 V (± 10 %)
Mains frequency	: 50 Hz (± 5 %)
Ambient temperature	: + 5 to + 45 deg. C
Maximum humidity	: 90 % R.H.
Power consumption	: 58 W (21”) to
	: 100 W (33”)
Standby Power consumption	: < 3 W

1.2 Connections

1.2.1 Side Connections, Top (or Front) Control


SIDE I/O

TOP CONTROL

FRONT CONTROL

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020802

Figure 1-1

Audio / Video In

1 - Video	CVBS (1 Vpp / 75 Ω)	→◎
2 - Audio	L (0.5 Vrms / 10 kΩ)	→◎
3 - Audio	R (0.5 Vrms / 10 kΩ)	→◎
4 - Headphone	3.5 mm (8 - 600 Ω / 4 mW)	◎ 6.3mm / 🎧

1.2.2 Rear Connections

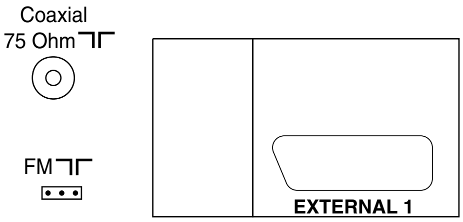
Coaxial
75 Ohm
FM
EXTERNAL 1

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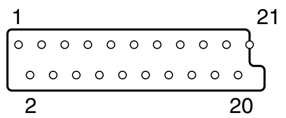
Figure 1-2 .eps

TV Aerial In
Aerial input : 75 Ω, Coax (IEC-type)

FM Radio In
Aerial input : via ‘coax-to-3 pins’ adapter
: ‘cable’ or ‘wire’ antenna

External 1: RGB/YUV in + CVBS in/out



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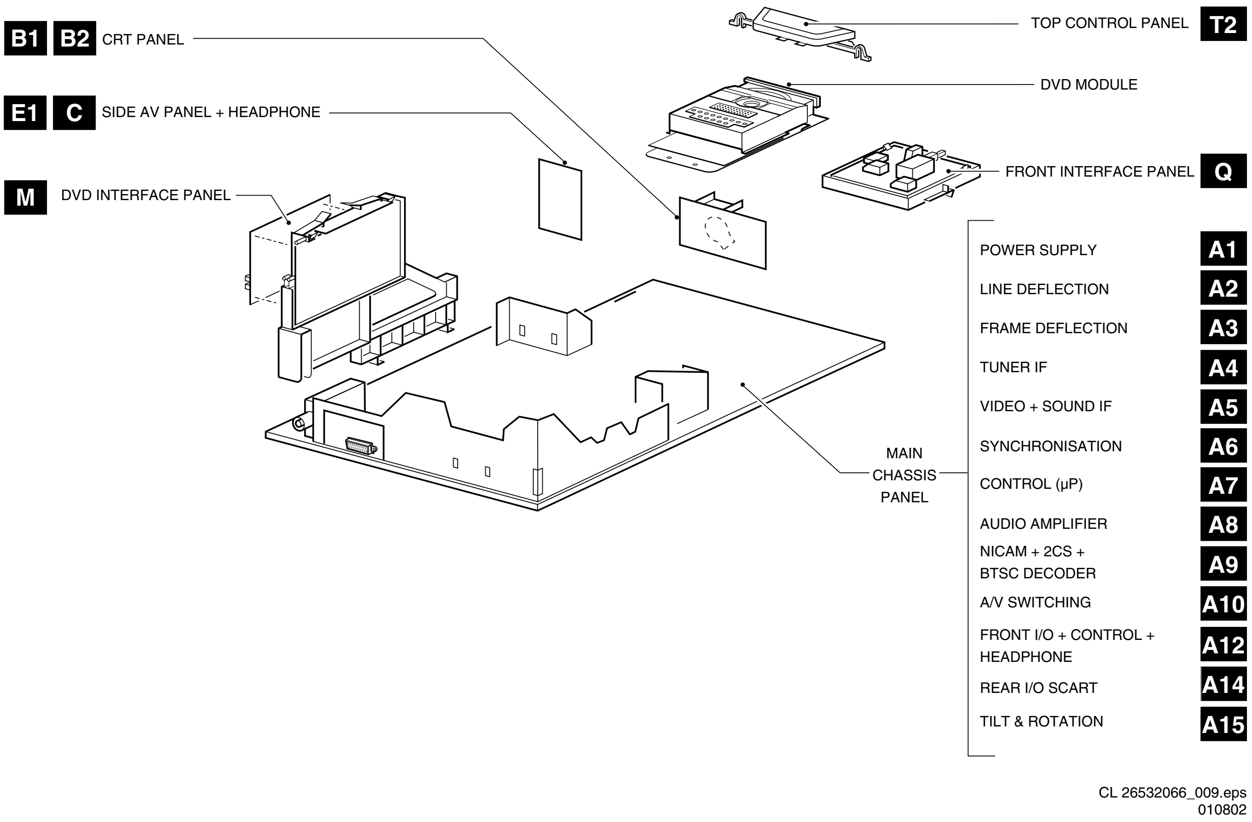
171199

Figure 1-3

1	- Audio	R (0.5 Vrms / 1 kΩ)	○→
2	- Audio	R (0.5 Vrms / 10 kΩ)	→○
3	- Audio	L (0.5 Vrms / 1 kΩ)	○→
4	-	GND	⏚
5	-	GND	⏚
6	- Audio	L (0.5 Vrms / 10 kΩ)	→○
7	- Blue / U	(0.7 Vpp / 75 Ω)	→○
8	- CVBS-status	0 - 2.0 V: INT 4.5 - 7 V: EXT 16:9 9.5 - 12 V: EXT 4:3	
9	-	GND	⏚
10	-		
11	- Green / Y	(0.7 Vpp / 75 Ω)	→○
12	-		
13	-	GND	⏚
14	-	GND	⏚
15	- Red / V	(0.7 Vpp / 75 Ω)	→○
16	- RGB-status	0 - 0.4 V: INT 1 - 3 V: EXT / 75 Ω	
17	-	GND	⏚
18	-	GND	⏚
19	- CVBS	(1 Vpp / 75 Ω)	○→
20	- CVBS	(1 Vpp / 75 Ω)	→○
21	- Earth	GND	⊥→○

1.3 Chassis Overview


B1 B2 CRT PANEL
E1 C SIDE AV PANEL + HEADPHONE
M DVD INTERFACE PANEL
TOP CONTROL PANEL T2
DVD MODULE
FRONT INTERFACE PANEL Q
MAIN CHASSIS PANEL
POWER SUPPLY A1
LINE DEFLECTION A2
FRAME DEFLECTION A3
TUNER IF A4
VIDEO + SOUND IF A5
SYNCHRONISATION A6
CONTROL (µP) A7
AUDIO AMPLIFIER A8
NICAM + 2CS + BTSC DECODER A9
A/V SWITCHING A10
FRONT I/O + CONTROL + HEADPHONE A12
REAR I/O SCART A14
TILT & ROTATION A15

CL 26532066_009.eps
010802

Figure 1-4

2. Safety & Maintenance Instructions, Warnings, and Notes

2.1 Safety Instructions For Repairs

2.1.1 General Safety

Safety regulations require that during a repair:
- Due to the ‘hot’ parts of this chassis, the set must be connected to the AC power via an isolation transformer.
- Safety components, indicated by the symbol ⚠, should be replaced by components identical to the original ones.
- When replacing the CRT, safety goggles must be worn.

Safety regulations require that after a repair, the set must be returned in its original condition. Pay particular attention to the following points:
- General repair instruction: as a strict precaution, we advise you to re-solder the solder connections through which the horizontal deflection current is flowing, in particular:
  - all pins of the line output transformer (LOT)
  - fly-back capacitor(s)
  - S-correction capacitor(s)
  - line output transistor
  - pins of the connector with wires to the deflection coil
  - other components through which the deflection current flows.

Note: This re-soldering is advised to prevent bad connections due to metal fatigue in solder connections and is therefore only necessary for television sets more than two years old.
- Route the wire trees and EHT cable correctly and secure them with the mounted cable clamps.
- Check the insulation of the AC power cord for external damage.
- Check the strain relief of the AC power cord for proper function, to prevent the cord from touching the CRT, hot components, or heat sinks.
- Check the electrical DC resistance between the AC plug and the secondary side (only for sets that have an isolated power supply). Do this as follows:
  1. Unplug the AC power cord and connect a wire between the two pins of the AC plug.
  2. Turn on the main power switch (keep the AC power cord unplugged!).
  3. Measure the resistance value between the pins of the AC plug and the metal shielding of the tuner or the aerial connection of the set. The reading should be between 4.5 MΩ and 12 MΩ.
  4. Switch the TV OFF and remove the wire between the two pins of the AC plug.
- Check the cabinet for defects, to prevent the possibility of the customer touching any internal parts.

2.1.2 Laser Safety

This unit employs a laser. Only qualified service personnel may remove the cover, or attempt to service this device (due to possible eye injury).

Laser Device Unit

Type	:	Semiconductor laser GaAlAs
Wavelength	:	650 nm (DVD)
	:	780 nm (VCD/CD)
Output Power	:	7 mW (DVD)
	:	10 mW (VCD/CD)
Beam divergence	:	60 degree

CLASS 1
LASER PRODUCT

Figure 2-1

Note: Use of controls or adjustments or performance of procedure other than those specified herein, may result in hazardous radiation exposure. Avoid direct exposure to beam.

2.1.3 Shock, Fire Hazard Service Test

Caution: After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.
Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before return to user/customer.
Ref.UL Standard NO.1492.

Note on safety:
Symbol ⚠: Fire or electrical shock hazard. Only original parts should be used to replace any part with symbol ⚠.
(other than original type), may increase risk or fire or electrical shock hazard.

2.2 Maintenance Instructions

It is recommended to have a maintenance inspection carried out by qualified service personnel. The interval depends on the usage conditions:
- When the set is used under normal circumstances, for example in a living room, the recommended interval is three to five years.
- When the set is used in an environment with higher dust, grease or moisture levels, for example in a kitchen, the recommended interval is one year.
- The maintenance inspection includes the following actions:
  1. Perform the 'general repair instruction' noted above.
  2. Clean the power supply and deflection circuitry on the chassis.
  3. Clean the picture tube panel and the neck of the picture tube.

2.3 Warnings

2.3.1 General

- In order to prevent damage to ICs and transistors, avoid all high voltage flashovers. In order to prevent damage to the picture tube, use the method shown in Fig. 2-1, to discharge the picture tube. Use a high voltage probe and a multi-meter (position VDC). Discharge until the meter reading is 0 V (after approx. 30 s).

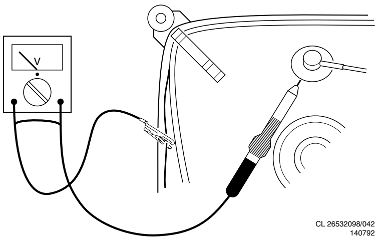


Figure 2-2

- All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD) ⚠. Careless handling during repair can reduce life drastically. When repairing, make sure that you are connected with the same potential as the mass of the set by a wristband with resistance. Keep components and tools also at this potential. Available ESD protection equipment:
  - Complete kit ESD3 (small tablemat, wristband, connection box, extension cable, and ground cable) 4822 310 10671.
  - Wristband tester 4822 344 13999.
- Together with the deflection unit and any multi-pole unit, flat square picture tubes form an integrated unit. The deflection and the multi-pole units are set optimally at the factory. Adjustment of this unit during repair is therefore not recommended.
- Be careful during measurements in the high voltage section and on the picture tube.
- Never replace modules or other components while the unit is switched ON.
- When you align the set, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

2.3.2 Laser

- The use of optical instruments with this product, will increase eye hazard.
- Only qualified service personnel may remove the cover or attempt to service this device, due to possible eye injury.
- Repair handling should take place as much as possible with a disc loaded inside the player.
- Text below is placed inside the unit, on the laser cover shield:

CAUTION VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM
ADVARSEL SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING UNDGÅ UDSÆTTELSE FOR STRÅLING
ADVARSEL SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES UNNGÅ EKSPONERING FOR STRÅLEN
VARNING SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRAKTA EJ STRÅLEN
VARO! AVATT AESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN
VORSICHT SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETSEN
DANGER VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM
ATTENTION RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE EXPOSITION DANGEREUSE AU FAISCEAU

Figure 2-3

2.4 Notes

- Measure the voltages and waveforms with regard to the chassis (= tuner) ground (⏚), or hot ground (⏚), depending on the area of circuitry being tested.
- The voltages and waveforms shown in the diagrams are indicative. Measure them in the Service Default Mode (see chapter 5) with a color bar signal and stereo sound (L: 3 kHz, R: 1 kHz unless stated otherwise) and picture carrier at 475.25 MHz (PAL) or 61.25 MHz (NTSC, channel 3).
- Where necessary, measure the waveforms and voltages with (⫪) and without (⫪̸) aerial signal. Measure the voltages in the power supply section both in normal operation (Ⓘ) and in standby (⏻). These values are indicated by means of the appropriate symbols.
- The picture tube panel has printed spark gaps. Each spark gap is connected between an electrode of the picture tube and the Aquadag coating.
- The semiconductors indicated in the circuit diagram and in the parts lists are completely interchangeable per position with the semiconductors in the unit, irrespective of the type indication on these semiconductors.

3. Directions For Use

Introduction

Thank you for purchasing this television set.
This handbook has been designed to help you install and operate your TV set.
We would strongly recommend that you read it thoroughly.

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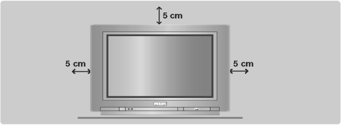
Recycling
The materials used in your set are either reusable or can be recycled.
To minimise environmental waste, specialist companies collect used appliances and dismantle them after retrieving any materials that can be used again (ask your dealer for further details).

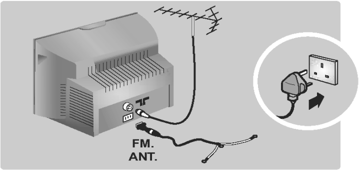
Installing your television set

❶ Positioning the television set



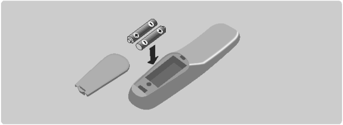
Place your TV on a solid, stable surface, leaving a space of at least 5 cm around the appliance. To avoid accidents, do not put anything on the set such as a cloth or cover, a container full of liquid (vase) or a heat source (lamp). The set must not be exposed to water.

❷ Connections



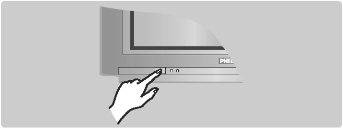
- Insert the aerial plug into the ┓┏ socket at the rear of the set.
- Insert the radio aerial socket into the FM ANT socket using the adapter supplied.
  If you are using an indoor aerial, reception may be difficult in certain conditions. You can improve reception by rotating the aerial. If the reception remains poor, you will need to use an external aerial.
- Insert the mains plug into a wall socket (220-240 V / 50 Hz).

❸ Remote control



Insert the two R6-type batteries (supplied) making sure that they are the right way round. Check that the mode selector is set to TV.
The batteries supplied with this appliance do not contain mercury or nickel cadmium. If you have access to a recycling facility, please do not discard your used batteries (if in doubt, consult your dealer). When the batteries are replaced, use the same type.

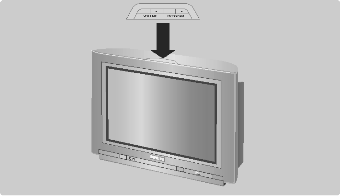
❹ Switching on



To switch on the set, press the on/off key.
A red indicator comes on and the screen lights up. Go straight to the chapter Quick installation on page 4.
If the television remains in standby mode, press **P** ⊕ on the remote control.
The indicator will flash when you use the remote control.

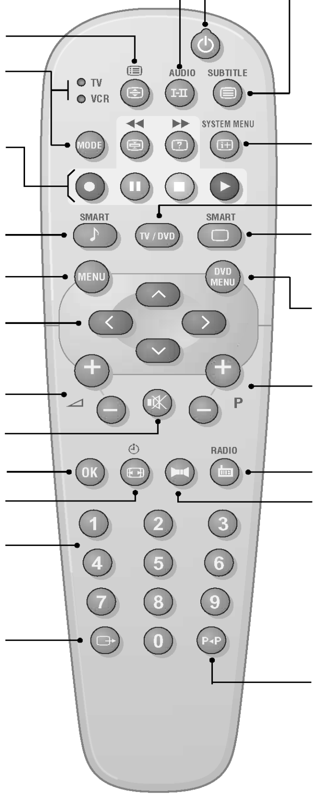
The keys on the TV set

The television set has 4 keys which are located on the front or the top of the set depending on the model.



The VOLUME - + (- ◿ +) keys are used to adjust sound levels. The PROGRAM - + (- **P** +) keys are used to select the required programmes. To access the menus, simultaneously hold down the ◿ - and ◿ + keys. The PROGRAM - + keys may then be used to select an adjustment and the - ◿ + keys to make that adjustment. To exit from the menus, hold down the 2 ◿ - and ◿ + keys.
Note: when the **Child Lock** *function is activated, these keys are unavailable (refer to* **Features** *menu on page 7).*

Remote control keys



DVD: language selection (p.11)
TV: sound mode
Used to force programmes in **Stereo** and **Nicam Stereo** to **Mono** or, for bilingual programmes, to choose between **Dual I** or **Dual II**.
The **Mono** *indication is red when in forced position.*

List of radio stations (p.5)

Mode selector (p. 17)

DVD keys (p.11)
VCR keys (p.17) and Teletext keys (p. 8)

Pre-set sound
Used to access a series of stored settings: **Speech, Music, Theatre** and return to **Personal**.

TV Menu
To call up or exit the menus.

Cursor
These 4 keys are used to move around the menus.

Volume
To adjust the sound level

Mute
To mute or restore the sound.

Validation (DVD/VCR)

16:9 modes (p. 9)

Number keys
Direct access to the programmes. For a 2 digit program, enter the 2nd digit before the dash disappears.

Selection of EXT socket
Press several times to select EXT1 and AV (p.16).

Standby
Lets you place the TV set on standby. To turn on the TV, press **P** ⊖ ⊖, ⏻, ⓪ to ⑨.

DVD: subtitling language (p.11)
TV: teletext (p. 8)

DVD: OSD menu (p.13)
TV: screen information / permanent no.
To display / clear the program number, name (if it exists), time, audio mode and time remaining for the sleep feature. Press the key for 5 seconds to activate permanent display of the number. This key is also used to exit from the menu.

TV / DVD mode
To switch the TV set to TV or DVD mode (p.11).

Pre-set image
Used to access a series of stored settings: **Bright, Natural, Soft, Multimedia** and return to **Personal**.

DVD menu (p.11)

Program selection
To access the next or previous programme.
For some programs, the title of the program will be displayed at the bottom of the screen.

RADIO / TV mode
To switch the TV set to TV or Radio mode (p.5).

Surround Sound
To activate / deactivate the surround sound effect. In stereo, this gives the impression that the speakers are further apart. For models equipped with Virtual Dolby Surround*, you can experience Dolby Surround Pro Logic sound effects. In mono, a stereo spatial effect is simulated.

Previous programme
To return to the previous programme.

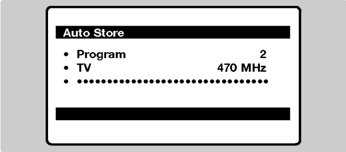
---

* *"Dolby" and the double-D symbols* DD *are trademarks of the Dolby Laboratories Licensing Corporation. Manufactured under license of Dolby Laboratories Licensing Corporation.*

Quick installation

Plug & Play

The first time you switch on the television, a menu appears on the screen and the tuning starts automatically.



Auto Store
- Program 2
- TV 470 MHz
- ••••••••••••••••••••••••••••••••

If the menu is not displayed, press and hold down the ⊿- *and* ⊿+ *keys on the TV set for 5 seconds to start the tuning.*

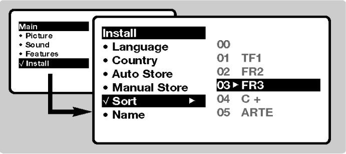
All the available TV programs and radio stations will be stored. This operation takes a few minutes. The display shows the progress of the search and the number of programs found. At the end of the search, the menu disappears.
To exit or interrupt the search, press MENU.
If no program is found, consult the possible solutions p. 18.

❶ If the transmitter or cable network sends the automatic sort signal, the programs will be numbered correctly. In this case, the installation is complete.

❷ If this is not the case, you need to use the **Sort** menu to number the programs correctly.
Some transmitters or cable networks broadcast their own sort parameters (region, language, etc.). In this case, indicate your choice using the ⌃⌄ *keys and validate with* ›.

Program sort

❶ Press key MENU. The **Main menu** is displayed on the screen.



Install
- Language
- Country
- Auto Store
- Manual Store
- √ Sort ►
- Name

00
01 TF1
02 FR2
03 ► FR3
04 C +
05 ARTE

❷ With the cursor, select the **Install** menu followed by the **Sort** menu.
❸ Select the programme you want to move using the ⌃⌄ keys and press ›.
❹ Then use the ⌃⌄ keys to select the new number and validate with ‹.
❺ Repeat steps ❸ and ❹ for each program you wish to renumber.
❻ To quit the menus, press ⊞.

Program name

If required, you can give a name to the programmes and external connectors.
Note: on installation, the programs are named automatically when an identification signal is sent.

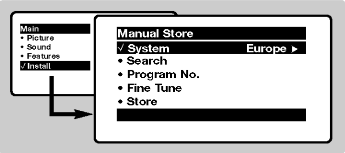
❶ Press the MENU key.
❷ With the cursor, select the **Install** menu, then **Name**
❸ Use the ⌃⌄ keys to select the programme to name or rename.
❹ Use the ‹› keys to move around the name display area (5 characters) and the ⌃⌄ keys to select the characters.
❺ When the name has been entered, use the ‹ key to exit. The name is stored.
❻ Repeat steps ❸ to ❺ for each programme you wish to name.
❼ To quit the menus, press ⊞.

Manual store

This menu is used to store the programmes one at a time.

❶ Press the (MENU) key.

❷ With the cursor, select the **Install** menu then **Manual store**:



❸ **System:** select **Europe** (automatic detection*) or **Western Europe** (BG standard), **Eastern Europe** (DK standard), **United Kingdom** (I standard) or **France** (LL' standard).

** Except for France (LL' standard), you must select choice* **France**.

❹ **Search:** press (>). The search starts. Once a programme is found, the scanning stops and its name is displayed (when available). Go to the next step. If you know the frequency of the required programme, this can be entered directly using the ⓪ to ⑨ keys.
If no picture is found, consult the possible solutions (p. 18).

❺ **Program No.:** enter the required number with the (<)(>) or ⓪ to ⑨ keys.

❻ **Fine Tune:** if the reception is not satisfactory, adjust using the (<)(>) keys.

❼ **Store:** press (>). The program is stored.

❽ Repeat steps ❹ to ❽ for each programme to store.

❾ To quit the menus, press (i+).

Other settings in the Install menu

❶ Press the (MENU) key and select the **Install** menu:

❷ **Language:** to change the display language for the menus.

❸ **Country:** to select your country (**GB** for Great Britain).
This setting is used for the search, automatic programme sort and teletext display. If your country does not appear in the list, select "…"

❹ Auto Store: to start automatic search for all programmes available in your region. If the transmitter or cable network sends the automatic sort signal, the programmes will be numbered correctly. If this is not the case, you need to use the Sort menu to renumber the programmes (see p. 4).
Some transmitters or cable networks broadcast their own sort parameters (region, language, etc.). In this case, indicate your choice using the (^)(v) keys and validate with (>). To quit or interrupt the search, press (MENU). If no picture is found, consult the possible solutions (p. 18).

❺ To quit the menus, press (i+).

Using the radio

Choice of TV or radio mode
Press the (TV/radio) key on the remote control to switch the TV set to either TV or radio mode. In radio mode, the number, station name (if available), frequency and sound mode are displayed on the screen. *To enter the station names, use the* **Name** *menu (p. 4)*

Program selection
Use the ⓪ ⑨ or (−) **P** (+) keys to select the FM stations (from 1 to 40).

List of radio stations
Press the (list) key to display the list of radio stations radio. Use the (^)(v) keys to change station and the (i+) key to exit.

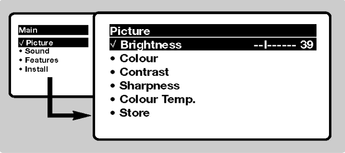
Using the radio menus
Use the (MENU) key to access the specific radio setting.

Search for radio stations
If you used the quick installation, all available FM stations have already been stored. To start a new search, use the **Install :Auto Store** menu (for a complete search) or **Manual Store** (for a station by station search). The **Sort** and **Name menus** let you sort or name the radio stations. Operation of these menus is the same as for the TV menus.

Screensaver *(only available on certain versions)*
Use the (screensaver) key to activate/deactivate the radio screensaver.

Picture settings

❶ Press (MENU) then (>). The **Picture** menu is displayed:



❷ Use the (^)(v) keys to select a setting and the (<)(>) keys to adjust.
Note: during the picture adjustment, only the selected line remains displayed. Press (^)(v) to display the menu again.

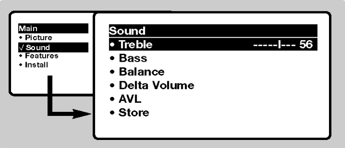
❸ Once the adjustments have been made, select **Store** and press (>) to store them. Press (i+) to exit.

Description of the adjustments:

- **Brightness:** this changes picture brilliance.
- **Colour:** this changes the intensity of the colour.
- **Contrast:** this changes the difference between the light and dark tones.
- **Sharpness:** this changes the picture definition.
- **Colour Temp.:** this changes the colour rendering: **Cold** (bluer), **Normal** (balanced) or **Warm** (redder).
- **Store:** to store the picture adjustments and settings (as well as the settings for **Contrast +** and **NR** in the **Features** menu).

Sound adjustments

❶ Press (MENU), select Sound ((v)) and press (>). The **Sound** menu is displayed:



❷ Use the (^)(v) keys to select a setting and the (<)(>) keys to adjust.

❸ Once the adjustments have been made, select Store and press (>) to store these changes.

❹ To quit the menus, press (i+).

Description of the settings:

- **Treble**: this alters the high frequency sounds.
- **Bass:** this alters the low frequency sounds.
- Balance: this balances the sound on the left and right speakers.
- **Delta Volume***: this is used to compensate any volume discrepancies between the different programs or EXT sockets. This setting is available for programs 0 to 40 and the EXT sockets.
- **AVL*** (Automatic Volume Leveller): this is used to limit increases in sound, especially on program change or advertising slots.
- **Store:** this is used to store the sound settings.

** Only available on certain versions.*

Feature settings

❶ Press (MENU), select **Features** ((v)) and press (>). You can adjust:

❷ **Timer, Child Lock** and **Parental Cont.**: see next page

❸ **Contrast +:** automatic adjustment of the picture contrast which permanently sets the darkest part of the picture to black.

❹ **NR:** attenuates picture noise (snow) in difficult reception conditions.

Caution: to store the **Contrast +** *and* **NR** *settings, use the* **Store** *choice in the* **Picture** *menu.*

❺ **Rotation** (only available on very large screen sets): large screen sets are sensitive to terrestrial magnetic field variations. This setting is used to compensate for this by adjusting the picture rotation.

❻ To quit the menus, press (i+).

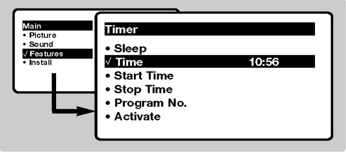
Timer function

This menu lets you use the TV set as an alarm.

❶ Press the MENU key.

❷ With the cursor, select the **Features** menu then **Timer** :

❸ **Sleep:** to select an automatic standby period.



This setting is also available via the ⏲ key on the remote control.

❹ **Time:** enter the current time.
Note: the time is updated automatically each time the TV set is switched on via the teletext information on programme 1. If this program does not have teletext, the update will not take place.

❺ **Start Time:** enter the start time.

❻ **Stop Time:** enter the standby time.

❼ **Program No.:** enter the number of the programme for the wake-up alarm. For models equipped with a radio, you can select an FM station by using the ⌃⌄ keys (the ⓪⑨ keys are only used to select TV programs).

❽ **Activate:** the settings include:
- **Once** for a single alarm,
- **Daily** for each day,
- **Stop** to cancel.

❾ Press ⏻ to put the TV set in standby. It will automatically come on at the time programmed. If you leave the TV set on, it will just change programmes at the time entered (and will go to standby mode at the **Stop Time**).
By combining the **TV lock** *and* **Timer** *functions, you can restrict the period during which the TV set is used, for example by your children.*

TV lock

You can block certain programs or inhibit use of the TV set completely by locking the keys.

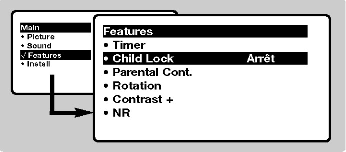
Child lock

❶ Press MENU.

❷ With the cursor, select the **Features** menu and position **Child Lock** to **On**.

❸ Turn off the TV set and hide the remote control. The TV set cannot be used (except via the remote control).

❹ To cancel: position **Child Lock** to **Off**.



Parental control

❶ Press the MENU key, select the **Features** menu then **Parental Cont.**:

❷ You must enter your secret access code. The first time you enter this, enter code 0711 twice and then enter your new code choice. The menu is displayed.

❸ **Parental Cont.:** Use the ⌃⌄ keys to select the TV programme required and validate with ›. The 🔒 symbol will be displayed opposite the programmes or sockets that are locked. From now on, to view a locked programme, you must enter your secret code, otherwise the screen will stay blank.
The access to the **Install** *menu is also locked.*
Caution, for encrypted programs using an external decoder, you must lock the corresponding EXT socket.

❹ **Change code:** this allows you to enter a new 4 digit code. Confirm your new code by entering it a second time.
If you have forgotten your secret code, enter the universal code 0711 twice.

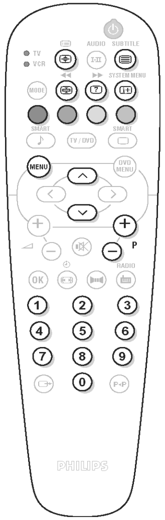
❺ **Unlock all:** this is used to unlock all locked programmes.

❻ **Lock All:** this is used to lock all the TV programmes and EXT connectors.

❼ Press the ⊞ key to quit.

Teletext

Teletext is an information system broadcast by certain channels which can be consulted like a newspaper. It also offers access to subtitles for viewers with hearing problems or who are not familiar with the transmission language (cable networks, satellite channels, etc.).

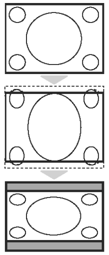


Press :		You will obtain:
≣	**Teletext call**	This is used to call teletext, change to transparent mode and then exit. The summary appears with a list of items that can be accessed. Each item has a corresponding 3 digit page number. *If the channel selected does not broadcast teletext, the indication 100 will be displayed and the screen will remain blank (in this case, exit teletext and select another channel).*
⓪/⑨ ⊖P⊕ ⌃ ⌄	**Selecting a page**	Enter the number of the page required using the ⓪ to ⑨ or ⊖ **P** ⊕ keys, ⌃⌄. Example: page 120, enter ① ② ⓪. The number is displayed top left, the counter turns and then the page is displayed. Repeat this operation to view another page. *If the counter continues to search, this means that the page is not transmitted. Select another number.*
●●○○	**Direct access to the items**	Coloured areas are displayed at the bottom of the screen. The 4 coloured keys are used to access the items or corresponding pages. *The coloured areas flash when the item or the page is not yet available.*
⊞	**Contents**	This returns you to the contents page (usually page 100).
⊕	**Enlarge a page**	This allows you to display the top or bottom part of the page and then return to normal size.
⊟	**Stop sub-page acquisition**	Certain pages contain sub-pages which are automatically displayed successively. This key is used to stop or resume sub-page acquisition. The indication ⊟ appears top left.
?	**Hidden information**	To display or hide the concealed information (games solutions).
MENU ⊞ ●●○○	**Favourite pages**	Instead of the standard coloured areas displayed at the bottom of the screen, you can store 4 favourite pages on the first 40 channels which can then be accessed using the coloured keys (red, green, yellow, blue). Once set, these favourite pages will become the default every time tetetext is selected. ❶ Press the MENU key to change to favourite pages mode. ❷ Display the teletext page that you want to store. ❸ Press the coloured key of your choice for 3 seconds. The page is now stored. ❹ Repeat the operation with the other coloured keys. ❺ Now when you consult teletext, your favourite pages will appear in colour at the bottom of the screen. To temporaly retrieve the standard items, press MENU. *To clear everything, and return the standard items as the default, press* ⊞ *for 5 seconds.*

16:9 Formats

The pictures you receive may be transmitted in 16:9 format (wide screen) or 4:3 format (conventional screen). 4:3 pictures sometimes have a black band at the top and bottom of the screen (letterbox format). This function allows you to optimise the picture display on screen.

If your television is equipped with a 4:3 screen.



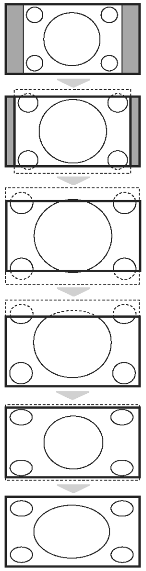
Press the ▣ key to select the different modes:

4:3
The picture is reproduced in 4:3 format.

Expand 4:3
The picture is enlarged vertically. This mode is used to cancell the black bands when watching a programme in letterbox format.

Compress 16:9
The picture is compressed vertically into 16:9 format.

If your television is equipped with a 16:9 screen.



Press the ▣ key to select the different modes:
This TV set is also equipped with automatic switching which will select the correct-screen format, provided the specific signals are transmitted with the programmes.

4:3
The picture is reproduced in 4:3 format and a black band is displayed on either side of the picture. The picture may be progressively enlarged using the ⌃⌄ keys.

Zoom 14:9
The picture is enlarged to 14:9 format, a thin black band remains on both sides of the picture. The ⌃⌄ keys allow you to compress and move the image vertically to view the top or bottom of the picture (subtitles).

Zoom 16:9
The picture is enlarged to 16:9 format. This mode is recommended when displaying pictures which have black bands at the top and bottom (letterbox format).
Use the ⌃⌄ keys if you wish to compress and move the image vertically to view the top or bottom of the picture.

Subtitle Zoom
This mode is used to display 4:3 pictures using the full surface of the screen leaving the sub-titles visible.
Use the ⌃⌄ keys to increase or decrease the compression at the bottom of the screen.

Super Wide
This mode is used to display 4:3 pictures using the full surface of the screen by enlarging the sides of the picture. The ⌃⌄ keys allow you to scroll the image up or down the screen.

Widescreen
This mode restores the correct proportions of pictures transmitted in 16:9 using full screen display.
Note : when watching a DVD, you can only use the <> keys while the screen format is displayed on the screen (otherwise you acceed to the DVD features).

Using the built-in DVD player

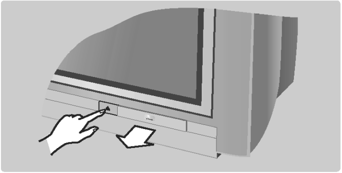
The built-in DVD player allows you to play DVD video disks as well as video and audio CDs (including finalised CD-Rs and CD-RWs). The disks can be recognised by their logo on the packaging.

Note: Generally, DVD films are not placed on the market at the same time in the various regions of the world. Accordingly, DVD players are provided with geographical zone codes. If you insert a disk which has a regional code that is different from that of your reader, you will see a message displayed on the screen. The disk cannot be played and you will have to remove it.

Inserting a disk

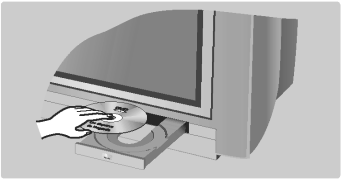
❶ Opening the drawer

Press the **EJECT** (⏏) button twice on the front, to the left of the drawer.



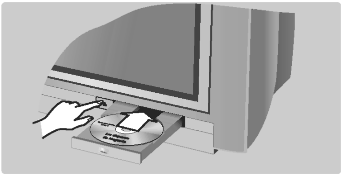
❷ Inserting the disk

Place the disk in the drawer, with the label facing upwards. Makes sure that it is positioned correctly in the recess.



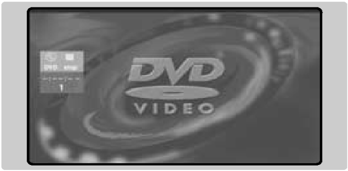
❸ Closing the drawer

Gently push the drawer back in or press the **EJECT** button next to the drawer to close. The disk will begin to play.

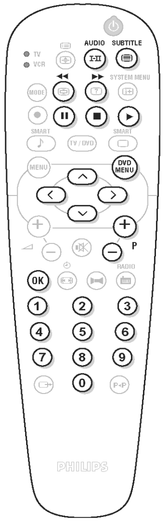


❹ Automatic play

Play begins automatically when the drawer closes. A status window appears on the left of the screen and indicates the current operation, the type of disk and its length. Next, the content of the disk is displayed.



Playing a DVD or video CD



Play

Once the disk has been inserted and the drawer closed, play begins automatically. Certain disks will ask you to select a heading from a menu. Use the buttons ⓪⑨ or ⌃⌄ ‹› then press OK.

Stopping play

Press the ■ button to stop play. The default screen appears and displays information on the player status.

Re-starting play ("resume" function)

When you stop a disk mid-play (by switching to TV mode, standby, ejecting the disk or pressing ■), you can resume play at the exact point you stopped the disk. Simply press the ▶ button, then when you see the I▶ symbol (resume), press ▶ again (otherwise the disk will start playing from the beginning).

The resume function remembers the last 4 disks played. Simply re-insert the disk and when you see the I▶ symbol press ▶.

Slow motion, fast forward and rewind

During play, press the ⌄ button to slow play down to 1/2, 1/4 or 1/8 speed. Press the ◀◀ or ▶▶ (or ‹›) button to fast forward or rewind at x4 or x32 speed. Press ▶ to return to normal speed.

Freeze-frame

Press II (or ⌃) to freeze the image. Press II again to move to the next frame or ▶ to resume play.

Next / previous chapter

DVD disks are split into different chapters to allow certain scenes to be accessed directly. Use the ⊖ **P** ⊕ keys to access the previous or next chapter.

DVD menu

Press the DVD MENU key. The DVD menu appears. Its contents will depend on the DVD. It allows you to access different sections, such as choice of language, direct access to certain scenes, special production notes, trailers, etc.

Use the ‹› ⌃⌄ keys to select, OK confirm and DVD MENU exit.

Language selection

Press the I-II key to select the different languages available on the disk. A menu bar appears at the top of the screen, this will disappear after a few seconds.

Subtitling language

Press the ▤ key to choose your subtitling language (choose **off** to deactivate it). The menu disappears after a few seconds.

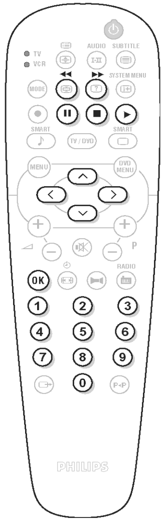
Ejecting the disk

Press the **EJECT** (⏏) button located on the front of the television. Play stops, then after several seconds the drawer opens.

Choice of TV or DVD mode

Press the TV/DVD key on the remote control to switch the TV set to either TV or DVD mode.

Playing an audio CD



Play

Once the disk has been inserted and the drawer has closed, play begins automatically. A special menu appears on the screen, indicating the number of tracks, the total length of the disk, the current track and time.

Changing tracks

Use the ⊖ **P** ⊕ keys on the remote control to change tracks or the ⓪⑨ keys to select the track of your choice.

Fast forward and rewind

Press the ◀◀ key or ▶▶ to fast forward or rewind at x4 or x8 speed. Press ▶ to return to normal speed.

Note : this function is not available with MP3 audio CDs.

Pause / stop / eject

Press II to pause and ▶ to resume play.

Press ■ to stop and the **EJECT** (⏏) button located on the front of the television to eject the disk.

Programming a favourite track selection

This function allows you to programme a selection of tracks into the memory.

Note : this function is not available with MP3 audio CDs.

❶ Press ■.
❷ Use the ⌄ key to select the trackline.
❸ Use the ‹› or ⓪⑨ keys to choose the number of the required track.
❹ Press OK to select it. The chosen number appears at the bottom of the screen.
❺ Repeat operations ❸ and ❹ for each favourite track you wish to select (maximum of 20 per disk).
If you wish you can repeat the same track number several times.
❻ Press ▶ to begin playing your favourite tracks.
❼ To stop playing favourite tracks, position the on/off line of the menu on **off** (shown in white).
❽ To delete everything, select **Delete all** and press OK.
To delete one track only, simply select its number in the favourites list (at the bottom of the screen) and press OK.

MP3

Playing an MP3 audio CD

The MP3 CDs allow you to store several albums on a single disc. Use the ⌃⌄ keys to select the albums and the ‹› or ⓪⑨ keys to select certain sections.

OSD menu

This menu allows you to access all the special functions of the DVD player.
Press the (☰) key (SYSTEM MENU).
A menu bar appears at the top of the screen with symbols for each setting. Use the ‹ › ∧ ∨ keys to select and make settings.

1en
2en
DVD
VIDEO

Description of symbols:

⚙	Preferential settings
▭	Subtitling language
((·	Audio language
◂□▸	Frame by frame
▷	Slow motion
▶▶	Fast play
◁	Camera angle
🔍	Zoom
T	Titles
C	Chapters / sequences
⌚	Direct access by time
☑	Favourite tracks

Symbols shown in grey indicate that the setting is not available.

Using the OSD menu

Audio and subtitling language
On the menu bar, select ((· for the audio language and ▭ for subtitling. Use the ∧ ∨ keys to choose your settings.
You can also access these settings with key (I-II) / (☰).

Frame by frame
Select ◂□▸ and press ∨. The image freezes. Use the ‹ or › keys to move forwards or backwards frame by frame.
Press ▶ to resume normal play.

Slow motion / fast play
Select ▷ for slow motion or ▶▶ for fast play and press ∨. Use the ‹ › keys to select the desired speed. To resume normal speed, press ▶.

Camera angle
Some disks include sequences recorded from several camera angles. Generally a special icon will appear. Select ◁ on the menu bar and use the ∧ ∨ keys to select the desired angle.

Zoom
Select 🔍 and press ∧ ∨ keys to activate the zoom function with a magnification of 1.33, 2 or 4. The image stops and is enlarged. Press (OK) if you want a panoramic shot of the enlarged image. Use the ‹ › ∧ ∨ keys to move around and (OK) confirm. To exit zoom mode, press ▶.

Direct access to Titles and Chapters
On the menu bar, select **T** to access the different titles available on the disk and **C** for the different chapters or film sequences. Use the ∧ ∨ keys to choose your settings.
The (−) P (+) keys allow you to access the chapters directly.

Direct access by time
Select ⌚ and press ∨. The image freezes. Use the (0)(9) keys to select the precise moment in the desired sequence. Press ∧ to confirm. Play resumes at the time indicated.

Favourite tracks
See next page.

Preferential settings
See next page.

Preferential settings

Press (☰). On the menu bar, select ⚙ and press ∨ to display the preferential settings menu:

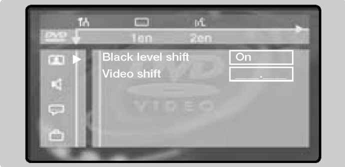


Image preferences: ▣
- **Black level shift;** to highlight the levels of black in the image (only works with NTSC images),
- **Video shift**; to move the image horizontally.

Sound preferences: 🔈
- **Digital output;** allows you to choose: **All**, **PCM** or **Off**.
- **Night mode;** optimises the sound dynamics for low-volume listening.
- **Karaoke vocal;** Only activate this function for playing special karaoke DVDs (the karaoke voices on the disk are then mixed into the normal stereo sound).

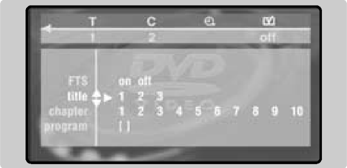
Language preference: 💬
- **Audio language;** to define the preferred language for the soundtracks of DVD films.
- **Subtitle;** to define the preferred language for subtitles on DVD films.
  If the preferred language is available on the disk, it will be selected by default. If not, the first language on the disk will be activated.

Display preferences: ▭
- **Access control** (see next page)
- **Status window;** to turn off the display of the player's status window.
- **Low-power standby;** on a fixed image, the contrast automatically fades after 5 min.
- **PBC;** to activate/disable the indexing function available on certain video CDs.
- **Help text;** to display/clear the explanation of the icons on the OSD menu.

Favourite tracks

This function allows you to program a selection of favourite tracks into the memory.

❶ Press (☰). On the menu bar, select ☑ and press ∨ to display the menu.



❷ Use the ∨ to select the title or chapterline.
❸ Use the ‹ › or (0)(9) keys to choose the number of the favourite **title** or **chapter**.
❹ Press (OK) to select. The chosen number appears at the bottom of the screen.
❺ Repeat operations ❸ and ❹ for each favourite title or chapter to be selected (maximum of 20 per disk).
If you wish you can repeat the same track number several times.
❻ Press (☰) to exit. The favourite tracks begin playing automatically.

To stop playing favourite tracks
Position the **on/off** line of the menu on **off** (shown in white).

To delete all
Select **Delete all** and press (OK).
To delete one title or track only, simply select its number in the favourites list (at the bottom of the screen) and press (OK).

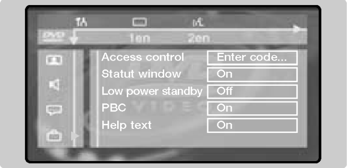
Access control and lock

This function allows you to access various levels of security for the player.

❶ Press ⊞. Select ↑A and press ⌄ until select menu ▭.

❷ Press › twice to enter the **Access control** menu.

❸ Enter the access code of your choice. You will be asked to enter it a second time to confirm. The **Access control** menu appears:



Access control	Enter code...
Statut window	On
Low power standby	Off
PBC	On
Help text	On

❹ **Child lock:** select 🔒 to switch this on or 🔓 off (the 'on' symbol is shown in white). When the child lock is on, you will be asked to enter a code to authorise the playing of DVD and video CD disks.

❺ **Parental level:** to activate the level of security from 0 (off) to 8 (maximum).

Certain DVD disks include security levels (1 to 8) with substitute scenes. For example, if you choose level 4, all scenes of level 4 (and below) will be played. Scenes of a higher level will not be played or will be replaced by substitute scenes. If the disk does not contain any substitute scenes, play stops and you will be asked to enter the 4-digit code.

❻ **Change country:** select your country (this setting takes place in the parental level which depends on the country).

❼ **Change code;** to modify the access code. You will be asked to enter it a second time to confirm.

If you have forgotten your confidential code, enter the universal code ■ ■ ■ ■.

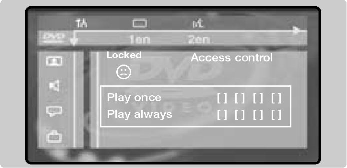
❽ Press ⊞ to exit.

Play authorisation

When the **Child lock** function is switched on, you will be asked to enter your code to authorise the playing of DVD and video CD disks.

Playing of audio CDs is authorised at all times.

❶ Insert a disk in the player. A dialogue field appears:



Locked ☹ Access control

Play once [] [] [] []

Play always [] [] [] []

❷ You will be asked to enter your secret code, either for **Play once**, or for **Play always**

❸ If you select **Play once**, the disk will be able to be played as long as it is not removed from the player and the television remains switched on (and in DVD mode).

❹ If you select **Play always** (with the ⌄ key), playing of the disk will be permanently authorised.

The player can memorise up to 50 disks. When the list is full and a new disk is added, the last disk in the list is removed.

Double-sided DVD disks (and video CDs with several volumes) may include a different identification code for each side (volume). In this case you will have to authorise each side (volume) separately.

Removing play authorisation

- Insert a disk in the player. Play begins automatically.
- When the ☺ symbol appears, press ■. The symbol ☹ appears, and play authorisation is removed for this disk.

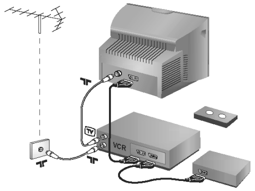
Removing security lock

To permanently remove the play authorisation message:

- Press ■ then ⊞.
- On the menu bar, select ↑A then ▭ and press ›.
- Enter your access code and position the **Child lock** setting 🔓 at (off). The symbol 🔓 is displayed in white.
- Press ⊞ to exit.

Connecting peripheral equipment

Video recorder



Carry out the connections shown opposite, using a good quality euroconnector cable.

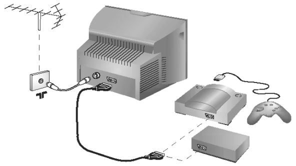
If your video recorder does not have a euroconnector socket, the only connection possible is via the aerial cable. You will therefore need to tune in your video recorder's test signal and assign it programme number 0 (refer to manual store, p. 6).

To reproduce the video recorder picture, press ⓪.

Video recorder with decoder

Connect the decoder to the second euroconnector socket of the video recorder. You will then be able to record scrambled transmissions.

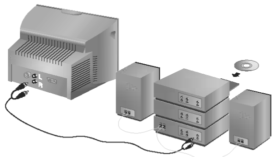
Other equipment



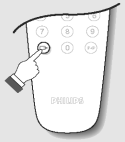
Satellite receiver, decoder, CDV, games, etc.

Carry out the connections shown opposite.

Amplifier



Use a digital audio connecting cable and connect the television's "DIGITAL AUDIO OUT" output to a "DIG IN" input on the amplifier (amplifier with coaxial digital input).

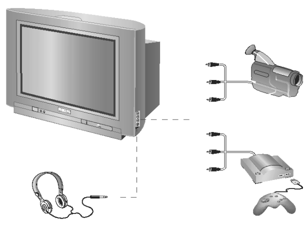


To select connected equipment

Press the ⇥ key to select **EXT1** and **AV** for connections on the front panel.

Most equipment (decoder, video recorder) carries out the switching itself.

Side connections



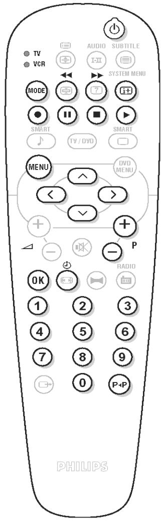
Make the connections as shown opposite.
With the ⊡ key, select AV.
For a monophonic device, connect the audio signal to the AUDIO L input. Use the I-II key to reproduce the sound on the left and right speakers of the TV set.

Headphones

When headphones are connected, the sound on the TV set will be cut. The ⊖ **P** ⊕ keys are used to adjust the volume level.
The headphone impedance must be between 32 and 600 Ohms.

VCR key

The remote control lets you control the main functions of the VCR.



Press the **MODE** key to select the required mode : **VCR** (video recorder) or **TV**. The remote control indicator lights up to display the selected mode. It switches off automatically after 20 seconds if left idle. The remote control automatically returns to TV mode.
The following keys are operational, depending on the equipment :

⏻	standby,
◀◀	fast rewind,
▶▶	fast forward,
●	recording,
❚❚	pause
■	stop,
▶	play,
⏲	timer,
MENU	menu,
cursor	navigation and adjustments,
OK	validation,
0 9	digit keys,
⊖ P ⊕	programme selection,
P<P	index function.

** Some functions are not available on all VCRs.*
The remote control is compatible with all VCRs using the RC5 standard.

Tips

Poor reception
The proximity of mountains or high buildings may be responsible for ghost pictures, echoing or shadows. In this case, try manually adjusting your picture: see **Fine Tuning** (p.5) or modify the orientation of the outside aerial.
Does your antenna enable you to receive broadcasts in this frequency range (UHF or VHF band)?
In the event of difficult reception (snowy picture) switch the **NR** on the **Features** menu to **ON**. (p. 6).

No picture
If the television does not switch on, please press the standby key ⏻ (located on the remote control) twice.
Have you connected the aerial socket properly?
Have you chosen the right system? (p. 5).
Poorly connected euroconnector cables or aerial sockets are often the cause of picture or sound problems (sometimes the connectors can become half disconnected if the TV set is moved or turned). Check all connections.

Peripheral equipment gives a black and white picture
To play a video cassette, check that it has been recorded under the same standard (PAL, SECAM, NTSC) which can be replayed by the video recorder.

The remote control no longer works.
Check that the mode selector on the side of the remote control is set to TV.

No sound
If on certain channels you receive a picture but no sound, this means that you do not have the correct TV system. Modify the **System** setting (p. 5).

Teletext
Are certain characters not displayed correctly? Check that the **Country** setting has been positioned correctly (p.5).

Does the DVD player no longer work?
Check that the disk does not have any fingerprints on it. Clean it with a soft cloth, wiping from the centre to the edge.

Remote control
The TV set does not react to the remote control; the indicator on the set no longer flashes when you use the remote control?
Replace the batteries.

Standby
When you switch the TV set on it remains in standby mode and the indication **Locked** is displayed when you use the keys on the TV set? The **Child Lock** function is switched **On** (p. 7).
If the set receives no signal for 15 mins, it automatically goes into standby mode.
To save power, your set is fitted with components that give it a very low power consumption when in standby mode (less than 3 W).

Still no results?
If your TV set breaks down, never attempt to repair it yourself: contact your dealer's after-sales service.

Cleaning the set
Only use a clean, soft and lint-free cloth to clean the screen and the casing of your set. Do not use alcohol-based or solvent-based products.

Glossary

RGB Signals: These are 3 Red, Green and Blue video signals which directly drive the red, green and blue emitters in the cathode ray tube. Using these signals provides better picture quality.
NICAM sound: Process by which digital sound can be transmitted.
System: Television pictures are not broadcast in the same way in all countries. There are different standards: BG, DK, I, and L L'. The SYSTEM setting (p. 6) is used to select these different standards. This is not to be confused with PAL or SECAM colour coding. Pal is used in most countries in Europe, Secam in France, Russia and most African countries. The United States and Japan use a different system called NTSC.
16:9: Refers to the ration between the length and height of the screen.
Wide screen televisions have a ration of 16/9, conventional screen TV sets have a ration of 4/3.

4. Mechanical instructions

4.1 Service positions

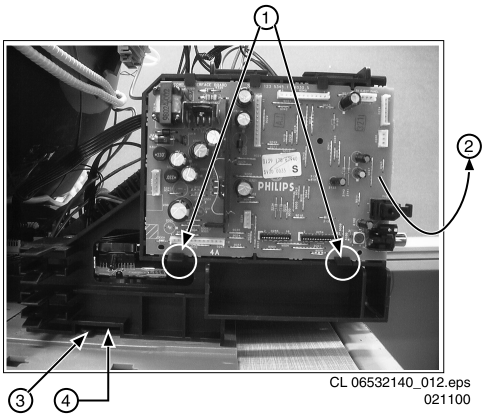
The following PWB's or modules are added for DVD (see also PWB location drawing, chapter 1):

1. DVD Interface panel.
2. DVD Module.

Note: Figures can deviate slightly from the actual situation, due to different set executions.

4.1.1 Accessing the DVD Interface panel

For better accessibility of the panel, remove the complete PWB from its bracket. Therefor release the two clamps at the side of the bracket [1] and lift the panel out [2], **Fig. 4-1**. (For measuring safely when the LSP is in service position, remove the bracket from the bottom tray by pulling it backward while lifting the clamp [3]. Then pull it upward [4], **Fig. 4-1** and replace the panel into the bracket.)



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021100

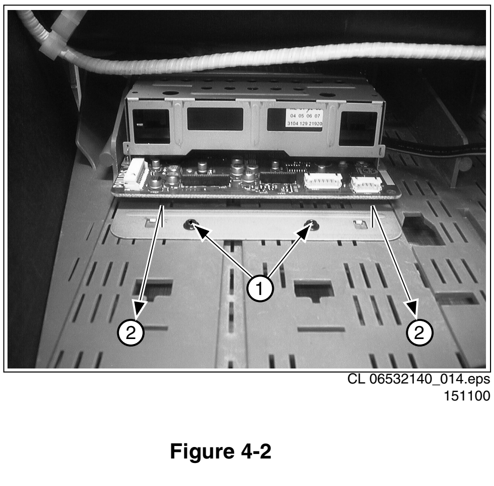
Figure 4-1

4.1.2 Accessing the DVD Module

- Remove cables from connectors 1501, 1600, 1603 and 1604 from the DVD Module and 0264 (to eject panel) from the DVD Interface panel.
- Remove the DVD Interface module from the bottom tray. Therefor lift the clamp [3] and pull the module backward [4], **Fig. 4-1**. Place the module left from the TV.

Release the LSP from the bottom tray and shift it slightly to the right, until the DVD Module is accessible.

- Unscrew the two fixation screws [1], **Fig. 4-2.**
- Lift the DVD Module and remove it in a backward motion [2], **Fig. 4-2.**



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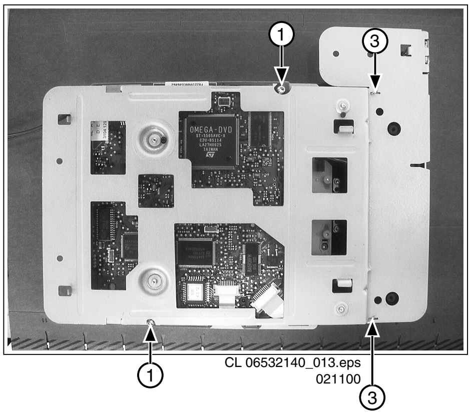
151100

Figure 4-2

4.1.3 Accessing the DVD board

- Remove the top-cover of the DVD. Therefor unscrew two fixation screws [1] and un-twist the two lugs [3] on the bottom-side, **Fig. 4-3**. The top-cover can now be removed.
- Press the DVD-tray release-catch [1] and slide the DVD tray forward, **Fig. 4-4** (be sure to push it in far enough, a screwdriver might be needed).
- Remove the bottom-cover of the DVD by unscrewing the four fixation screws [1], **Fig. 4-5**. The DVD board can now be accessed.



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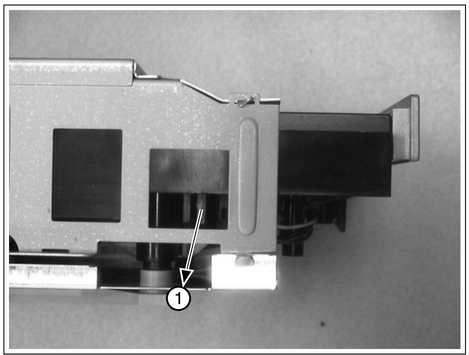
021100

Figure 4-3



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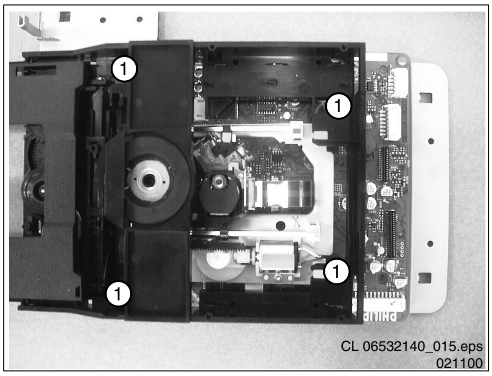
300301

Figure 4-4



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021100

Figure 4-5

5. Service Modes, Error Codes and Fault Finding

Index of this chapter:

1. Test points.
2. Service Modes.
3. Problems and Solving Tips (related to CSM).
4. ComPair.
5. Error Codes.
6. The Blinking LED Procedure.
7. Protections.
8. Repair Tips.

5.1 Test Points

The chassis is equipped with test points printed on the circuit board assemblies. These test points refer to the functional blocks:

TEST POINT OVERVIEW L01		
Test point	Circuit	Diagram
A1-A2-A3-…..	Audio processing	A8, A9 / A11
C1-C2-C3-…..	Control	A7
F1-F2-F3-…..	Frame drive	A3
I1-I2-I3-…..	Tuner & IF	A4
L1-L2-L3-….	Line drive	A2
P1-P2-P3-…..	Power supply	A1
S1-S2-S3-…..	Synchronisation	A6
V1-V2-V3-…..	Video processing	A5, B1

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210501

Figure 5-1 Test point overview

The numbering is in a logical sequence for diagnostics. Always start diagnosing within a functional block in the sequence of the relevant test points for that block.

Perform measurements under the following conditions:

- Service Default Alignment Mode.
- Video: colour bar signal.
- Audio: 3 kHz left, 1 kHz right.

5.2 Service Modes

Combined Service Default Alignment Mode (SDAM) offers several features for the service technician, while the Customer Service Mode (CSM) is used for communication between dealer and customer.

There is also the option of using ComPair, a hardware interface between a computer (see requirements) and the TV chassis or DVD module. It offers the ability of structured troubleshooting, error code reading and software version readout for TV DVD (Large Screen) chassis.
Minimum requirements: a Pentium processor, Windows 95/98, and a CD-ROM drive (see also paragraph 5.4).

5.2.1 Service Default Alignment Mode (SDAM)

Purpose

- To create a predefined setting to get the same measurement results as given in this manual.
- To override SW protections.
- To start the blinking LED procedure.
- To change option settings.
- To display / clear the error code buffer.
- To perform alignments.

Specifications

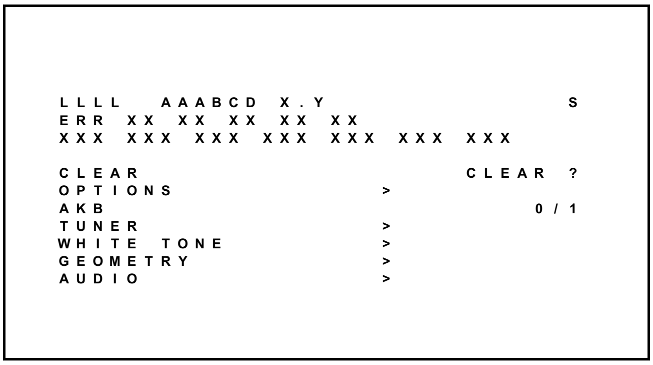
- Tuning frequency:
  - 475.25 MHz for PAL/SECAM.
- Colour system:
  - SECAM L for France.
  - PAL-BG for Europe and AP-PAL.
- All picture settings at 50 % (brightness, colour contrast, hue).
  - Bass, treble and balance at 50 %; volume at 25 %.
- All service-unfriendly modes (if present) are disabled, like:
  - (Sleep) timer,
  - Child/parental lock,
  - Blue mute,
  - Hotel/hospitality mode
  - Auto switch-off (when no 'IDENT' video signal is received for 15 minutes),
  - Skip / blank of non-favourite presets / channels,
  - Auto store of personal presets,
  - Auto user menu time-out.
- Operation hours counter (maximum of four digits displayed).
- Software version.
- Option settings.
- Error buffer reading and erasing.
- Software alignments.

How to enter SDAM

Use one of the following methods:

- Use a standard customer RC-transmitter and key in the code 062596 directly followed by the 'M' (menu) button.
- Short circuit jumper wires 9631 and 9641 on the mono carrier (see Fig. 8-1) and switch "on" the set. Then press the power button (remove the short circuit after start-up). **Caution:** Entering SDAM by shorten wires 9631 and 9641 will override the +8V-protection. Do this only for a short period. When doing this, the service-technician must know exactly what he is doing, as it could lead to damaging the set.
- Via ComPair.

After entering SDAM, the following screen is visible, with S at the upper right side for recognition.



```
LLLL   AAABCD  X.Y                        S
ERR  XX  XX  XX  XX  XX
XXX  XXX  XXX  XXX  XXX  XXX  XXX

CLEAR                               CLEAR ?
OPTIONS                    >
AKB                                    0/1
TUNER                      >
WHITE TONE                 >
GEOMETRY                   >
AUDIO                      >
```

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020802

Figure 5-2 SAM menu

- **LLLL.** This is the operation hours counter. It counts the normal operation hours, not the standby hours (maximum four digits Displayed).
- **AAABCD-X.Y.** This is the software identification of the main micro controller:
  - A = the chassis name (L01).
  - B = the region (E = Europe, A = Asia Pacific, U = NAFTA, L = LATAM).
  - C = the feature of software diversity: N = stereo non-dBx, S = stereo dBx, M = mono, D = DVD

  - D = the language cluster number:
  - X = the main software version number.
  - Y = the sub software version number.
- **S.** Indication of the actual mode (S = SDAM = Service Default Alignment mode).
- **Error buffers.** Five errors possible.
- **Option bytes.** Seven codes possible.
- **Clear.** Erase the contents of the error buffer. Select the CLEAR menu item and press the CURSOR RIGHT key. The content of the error buffer is cleared.
- **Options.** To set the Option Bytes. See chapter 8.3.1 for a detailed description.
- **AKB.** Disable (0) or enable (1) the 'black current loop' (AKB = Auto Kine Bias).
- **Tuner.** To align the Tuner. See chapter 8.3.2 for a detailed description.
- **White Tone.** To align the White Tone. See chapter 8.3.3 for a detailed description.
- **Geometry.** To align the set geometry. See chapter 8.3.4 for a detailed description.
- **Audio.** To align the Audio parameters. See chapter 8.3.5 for a detailed description.

How to navigate

- In SDAM, select menu items with the CURSOR UP/DOWN key on the remote control transmitter. The selected item will be highlighted. When not all menu items fit on the screen, move the CURSOR UP/DOWN key to display the next / previous menu items.
- With the CURSOR LEFT/RIGHT keys, it is possible to:
  - Activate the selected menu item.
  - Change the value of the selected menu item.
  - Activate the selected submenu.
- In SDAM, when you press the MENU button, the set will switch to the normal user menus (with the SDAM mode still active in the background). To return to the SDAM menu press the OSD / STATUS button.
- When you press the MENU key in a submenu, you will return to the previous menu.

How to store settings

To store the settings, leave the SDAM (at main menu figure 5-2 “SAM menu”) with the 'Standby' button on the remote.

How to exit

Switch the set to STANDBY by pressing the power button on the remote control (if you switch the set "off" by removing the mains voltage, the set will return in SDAM when is switched "on" again). The error buffer is not cleared.

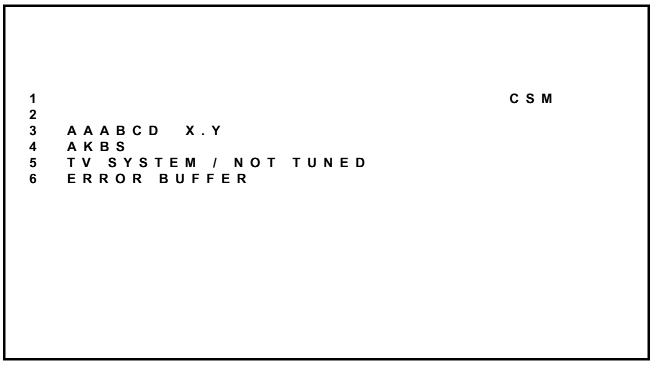
5.2.2 Customer Service Mode (CSM)

Purpose

When a customer is having problems with his TV-set, he can call his dealer. The service technician can than ask the customer to activate the CSM, in order to identify the status of the set. Now, the service technician can judge how severe the complaint is. In many cases, he can advise the customer how to solve the problem, or he can decide if it is necessary to visit the customer.
The CSM is a read only mode; therefore, modifications in this mode are not possible.

How to enter

To enter the CSM, key in the code '123654' on the user remote control.
After switching "on" the Customer Service Mode, the following screen will appear:



```
1                                          CSM
2
3  AAABCD  X.Y
4  AKBS
5  TV SYSTEM / NOT TUNED
6  ERROR BUFFER
```

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020802

Figure 5-3 CSM menu

1. Indication of the actual mode CSM = Customer Service Mode
2. Reserved item.
3. Software identification of the main micro controller (see paragraph 5.2.1 for an explanation)
4. Reserved item.
5. Indicates TV system and or not receiving an 'IDENT' signal on the selected source. In case no IDENT signal is present. It will display 'NOT TUNED'
6. Error code buffer (see paragraph 5.5 for more details). Displays the last five errors of the error code buffer.

How to exit

Use one of the following methods:

- Press one of the buttons 'Menu', 'OSD' or 'Standby' of the remote control keys.
- Switch "off" the TV set with the mains switch.

5.3 Problems and Solving Tips (Related to CSM)

5.3.1 Picture Problems

Note: Below described problems are all related to the TV settings. The procedures to change the value (or status) of the different settings are described.

No colours / noise in picture

Check CSM line 5. Wrong colour system installed. To change the setting:

1. Press the MENU button on the remote control.
2. Select the INSTALLATION sub menu.
3. Select and change the SYSTEM setting until picture and sound are correct.
4. Select the STORE menu item.

Colours not correct / unstable picture

Check CSM line 5. Wrong colour system installed. To change the setting:

1. Press the MENU button on the remote control.
2. Select the INSTALLATION sub menu.
3. Select and change the SYSTEM setting until picture and sound are correct.
4. Select the STORE menu item.

Picture too dark or too bright

Increase / decrease the BRIGHTNESS and / or the CONTRAST value when:

- The picture improves after you have pressed the 'Smart Picture' button on the remote control.
- The picture improves after you have switched on the Customer Service Mode

The new "Personal" preference value is automatically stored.

White line around picture elements and text

Decrease the SHARPNESS value when the picture improves after you have pressed the 'Smart Picture' button on the remote control.

The new "Personal" preference value is automatically stored.

Snowy picture

Check CSM line 5. If this line indicates 'NOT TUNED', check the following:

- No or bad antenna signal. Connect a proper antenna signal.
- Antenna not connected. Connect the antenna.
- No channel / pre-set is stored at this program number. Go to the INSTALL menu and store a proper channel at this program number.
- The tuner is faulty (in this case the CODES line will contain error number 10). Check the tuner and replace / repair if necessary.

Snowy picture and/or unstable picture

A scrambled or decoded signal is received.

Black and white picture

Increase the COLOR value when the picture improves after you have pressed the 'Smart Picture' button on the remote control.

The new "Personal" preference value is automatically stored.

Menu text not sharp enough

Decrease the CONTRAST value when the picture improves after you have pressed the 'Smart Picture' button on the remote control.

The new "Personal" preference value is automatically stored.

5.3.2 Sound Problems

No sound or sound too loud (after channel change / switching on)

Increase / decrease the VOLUME level when the volume is OK after you switched on the CSM.

The new "Personal" preference value is automatically stored.

5.4 ComPair

5.4.1 Introduction

ComPair (Computer Aided Repair) is a service tool for Philips Consumer Electronics products. ComPair is a further development on the European DST (service remote control), which allows faster and more accurate diagnostics. ComPair has three big advantages:

- ComPair helps you to quickly get an understanding on how to repair the chassis in a short time by guiding you systematically through the repair procedures.
- ComPair allows very detailed diagnostics (on I2C level) and is therefore capable of accurately indicating problem areas. You do not have to know anything about I2C commands yourself because ComPair takes care of this.
- ComPair speeds up the repair time since it can automatically communicate with the chassis (when the microprocessor is working) and all repair information is directly available. When ComPair is installed together with the SearchMan electronic manual of the defective chassis, schematics and PWBs are only a mouse click away.

5.4.2 Specifications

ComPair consists of a Windows based faultfinding program and an interface box between PC and the (defective) product. The ComPair interface box is connected to the PC via a serial or RS232 cable.

In case of the L01 chassis, the ComPair interface box and the TV communicate via a bi-directional service cable via the service connector (located on the Main panel, see also figure 8-1 suffix D).

The ComPair faultfinding program is able to determine the problem of the defective television. ComPair can gather diagnostic information in two ways:

- **Automatic** (by communication with the television): ComPair can automatically read out the contents of the entire error buffer. Diagnosis is done on I2C level. ComPair can access the I2C bus of the television. ComPair can send and receive I2C commands to the micro controller of the television. In this way, it is possible for ComPair to communicate (read and write) to devices on the I2C busses of the TV-set.
- **Manually** (by asking questions to you): Automatic diagnosis is only possible if the micro controller of the television is working correctly and only to a certain extend. When this is not the case, ComPair will guide you through the faultfinding tree by asking you questions (**example:** *Does the screen give a picture? Click on the correct answer: YES / NO*) and showing you examples (**example:** *Measure test-point I7 and click on the correct oscillogram you see on the oscilloscope*). You can answer by clicking on a link (e.g. text or a waveform picture) that will bring you to the next step in the faultfinding process.

By a combination of automatic diagnostics and an interactive question / answer procedure, ComPair will enable you to find most problems in a fast and effective way.

Beside fault finding, ComPair provides some additional features like:

- Up or downloading of presets.
- Managing of preset lists.
- If both ComPair and SearchMan (Electronic Service Manual) are installed, all the schematics and the PWBs of the set are available by clicking on the appropriate hyperlink**. Example:** *Measure the DC-voltage on capacitor C2568 (Schematic/Panel) at the Monocarrier. Click on the 'Panel' hyperlink to automatically show the PWB with a highlighted capacitor C2568. Click on the 'Schematic' hyperlink to automatically show the position of the highlighted capacitor.*

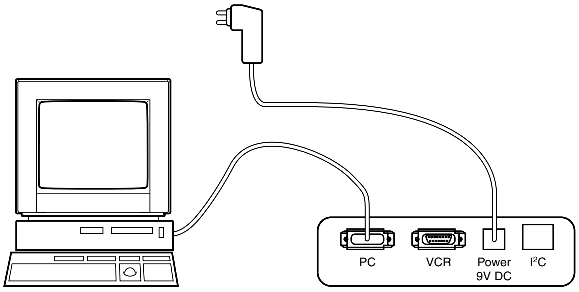
5.4.3 How To Connect

First install the ComPair Browser software before connecting ComPair to the L01.1E-DVD (see the Quick Reference Card for installation instructions). In the L01.1E-DVD, you must diagnose the TV (including the DVD-interface) and the DVD-module separately. Always start the diagnosis by connecting the ComPair tool to the TV-set. If something is wrong with the DVD-module, ComPair will explain how and when to connect the ComPair tool to the DVD-module.

Connection to the TV-set

1. Connect the RS232 interface cable between a free serial (COM) port of your PC and the PC connector (marked with 'PC') of the ComPair interface.
2. Connect the mains adapter to the supply connector (marked with 'POWER 9V DC') on the ComPair interface.
3. Switch the ComPair interface "off".
4. Switch the television set "off" with the mains switch.
5. Connect the ComPair interface cable (3122 785 90004) between the connector on the rear side of the ComPair interface (marked with 'I2C') and the ComPair connector 0217 on the mono carrier (see figure 8-1 in chapter 'Alignments').
6. Plug the mains adapter in the mains outlet and switch "on" the interface. The green and red LEDs light up together. The red LED extinguishes after approx. 1 second while the green LED remains lit.

7. Start the ComPair program and read the 'introduction' chapter.



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050898

Figure 5-4 ComPair set-up

Connection to the DVD-module
Follow the instructions given on the screen for further diagnosis.

1. Use the ComPair DVD interface cable (3122 785 90017) to connect the DVD-module to the ComPair interface.

5.4.4 How To Order

ComPair order codes:

- Starter kit ComPair32/SearchMan32 software and ComPair interface (excl. transformer): 3122 785 90450.
- ComPair interface (excluding transformer): 4822 727 21631.
- Starter kit ComPair32 software (registration version): 3122 785 60040.
- Starter kit SearchMan32 software: 3122 785 60050.
- ComPair32 CD (update): 3122 785 60070.
- SearchMan32 CD (update): 3122 785 60080.
- ComPair interface cable for TV set: 3122 785 90004.
- ComPair interface cable for DVD-module: 3122 785 90017

5.5 Error Codes

5.5.1 Error Buffer

The error code buffer contains all detected errors since the last time the buffer was erased. The buffer is written from left to right. When an error occurs that is not yet in the error code buffer, it is written at the left side and all other errors shift one position to the right.

5.5.2 How To Read The Error Buffer

You can read the error buffer in 3 ways:

- On screen via the SDAM (only if you have a picture). Examples:
  - ERROR: 0 0 0 0 0 : No errors detected.
  - ERROR: 6 0 0 0 0 : Error code 6 is the last and only detected error.
  - ERROR: 9 6 0 0 0 : Error code 6 was first detected and error code 9 is the last detected (newest) error.
- Via the blinking LED procedure (when you have no picture). See next paragraph.
- Via ComPair.

5.5.3 How To Clear The Error Buffer

The error code buffer is cleared in the following cases:
By activation of the CLEAR command in the SDAM menu:
If the content of the error buffer has not changed for 50 hours, it resets automatically.
Notes:

- When leaving SDAM by disconnecting the set from the mains, the error buffer is not reset.

5.5.4 Error Codes

In case of non-intermittent faults, clear the error buffer before you begin the repair. These to ensure that old error codes are no longer present.
If possible, check the entire contents of the error buffer. In some situations an error code is only the result of another error code and not the actual cause (e.g., a fault in the protection detection circuitry can also lead to a protection).

Table 5-1 Error code overview

Error	Device	Error description	Check item	Diagram
0	Not applicable	No Error		
1	Not applicable	X-Ray Protection (USA)	2465, 7460	A2
2	Not applicable	Horizontal Protection	7460, 7461, 7462, 7463, 6467	A2
3	TDA8359TDA9302	Vertical Protection	7861, VlotAux+13v	A2, A3
4	MSP34X5TDA9853	MSP I2C identification error	7831, 7861	A9 or A11
5	TDA95XX	POR 3.3V / 8V Protection	7200, 7560, 7480	A1, A2. A5, A6, A7
6	I2C bus	General I2C bus error	7200, 3624, 3625	A7
7	-	-	-	-
8	Not applicable	E/W Protection	7400, 3405, 3406, 3400	A2
9	M24C08	NVM I2C ident. error	7602, 3611, 3603, 3604	A7
10	Tuner	Tuner I2C ident. error	1000, 7482	A2, A4
11	TDA6107/8	Black current loop protection	7330, RGB amps, CRT	B1, B2
12	M65669	PIP I2C ident. error (USA)	7803	P
13	SBF 1005T	Voice Control I2C ident. error	7004 Hello IC	Voice Control cct
14	Not applicable	DVD Loader I2C ident. error	DVD Loader	DVD Loader SD3.11 (SM)

5.6 The Blinking LED Procedure

Via this procedure you can make the contents of the error buffer visible via the front LED. This is especially useful when there is no picture.

When the SDAM is entered, the LED will blink the contents of the error-buffer.
- 'n' short blinks (where 'n' = 1 - 14),
- When all the error-codes are displayed, the sequence finishes with a LED blink of 3 s,
- The sequence starts again.

Example of error buffer: **12 9 6 0 0**
After entering SDAM:
- **12** short blinks followed by a pause of 3 s,
- **9** short blinks followed by a pause of 3 s,
- **6** short blinks followed by a pause of 3 s,
- **1** long blink of 3 s to finish the sequence,
- The sequence starts again.

5.7 Protections

If a fault situation is detected an error code will be generated and if necessary the set will be put in the protection mode. Blinking of the red LED at a frequency of 3 Hz indicates the protection mode. In some error cases the microprocessor does not put the set in the protection mode. The error codes of the error buffer and the blinking LED procedure can be read via the service menu (SDAM), or via ComPair.
To get a quick diagnosis the chassis has two service modes implemented:
- The Customer Service Mode (CSM).
- The Service Default Alignment Mode (SDAM). Start-up of the set in a predefined way and adjustment of the set via a menu and with the help of test patterns.

See for a detailed description Chapter 9.7.6.

5.8 Repair Tips

Below some failure symptoms are given, followed by a repair tip.
- **Set is dead and makes a hiccupping sound.** 'MainSupply' is available. Hiccupping stops when de-soldering L5561, meaning that problem is in the 'MainSupply' line. No output voltages at LOT, no horizontal deflection. Reason: line transistor 7460 is defective.
- **Set is dead, and makes no sound.** Check power supply IC 7520. Result: voltage at pins 1, 3, 4, 5 and 6 are about 180 V and pin 8 is 0 V. The reason why the voltage on these pins is so high is because the output driver (pin 6) has an open load. That is why MOSFET 7521 is not able to switch. Reason: feedback resistor 3523 is defective. **Caution:** be careful measuring on the gate of 7521; circuitry is very high ohmic and can easily be damaged!
- **Set is in hiccup mode and shuts down after 8 s.** Blinking LED (set in SDM mode) indicates error 5. As it is unlikely that P 'POR' and '+8V protection' happen at the same time, measure the '+8V'. If this voltage is missing, check transistor 7480.
- **Set is non-stop in hiccup mode.** Set is in over current mode; check the secondary sensing (opto coupler 7515) and the 'MainSupply' voltage. Signal 'Stdby_con' must be logic low under normal operation conditions and goes to high (3.3 V) under standby and fault conditions.
- **Set turns on, but without picture and sound.** The screen shows snow, but OSD and other menus are okay. Blinking LED procedure indicates error 11, so problem is expected in the tuner (pos. 1000). Check presence of supply voltages. As 'Vlotaux+5V' at pin 5 and 7 are okay, 'VT_supply' at pin 9 is missing. Conclusion: resistor 3460 is defective.
- **Set turns on, but with a half screen at the bottom. Sound is okay.** Blinking LED (set in SDM mode) indicates error 3. Check 'Vlotaux+11V' and '+50V'. If they are okay, problem is expected in the vertical amplifier IC 7471. Measure with a scope the waveform on pin 17 of the UOC. Measure also at pin 1 of IC 7471. If here the signal is missing, a defective resistor R3244 causes the problem.

5.9 Regions code setting

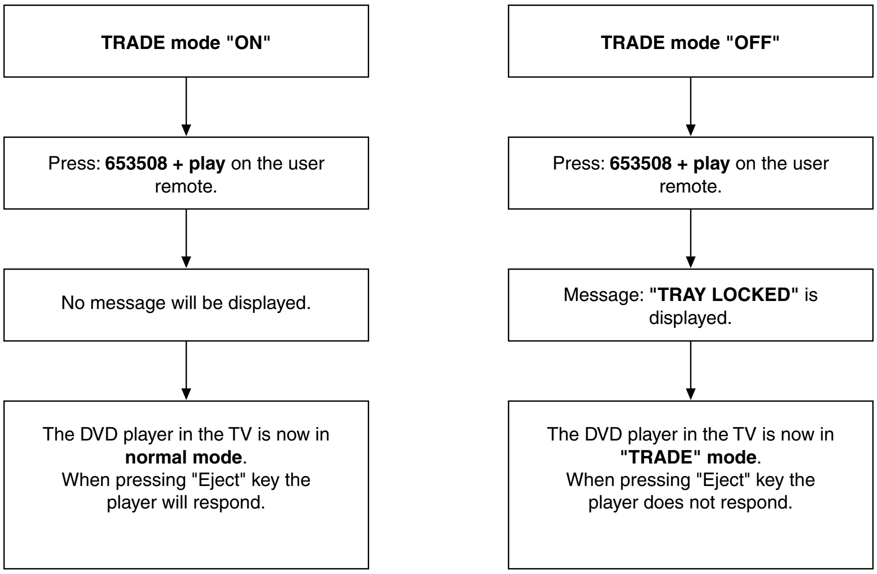
Notes:
- This information is confidential and may not be distributed.
- Only a qualified service person is allowed to reprogram the mono board.

5.9.1 Reprogramming the Mono Board

After reset of NV-memory or repair of the mono board, all the customer settings and also the region code will be lost. Reprogramming of the mono board will put the player back in the state in which it has left the factory, i.e. with the default settings and the allowed region code.
Reprogramming will be done by way of the remote control.
1. Go to DVD mode by pressing "TV/DVD" button.
2. Put the player in stop mode, no disc loaded.
3. Reprogramming is limited to 25 times: when the counter reaches 25, reprogramming is not possible anymore!
4. Press the following keys on the remote control:
    1. 'PLAY' followed by the numerical keys '1 5 9'.
    2. The display at the screen shows now: ' - - - - - - - - - - - - ' (12 dashes)
    3. Enter region code by keying in:
        - Region code for NAFTA: 1 4 0 0 0 0 0 0 0 0 0 0 + 'PLAY' key.
        - Region code for Europe: 1 4 1 0 0 0 0 0 0 0 0 0 + 'PLAY' key.
        - Region code for AP: 1 4 3 0 0 0 0 0 0 0 0 0 + 'PLAY' key.
        - Region code for LATAM: 1 4 6 0 0 0 0 0 0 0 0 0 + 'PLAY' key.
5. The TV screen will turn blue during a short time, to confirm that the mono board has been reprogrammed.

5.9.2 Trade Mode

When the TV DVD is in Trade Mode, the TV DVD cannot be controlled by means of the front key buttons, but only by means of the remote control.



TRADE mode "ON"

Press: **653508 + play** on the user remote.

No message will be displayed.

The DVD player in the TV is now in **normal mode**.
When pressing "Eject" key the player will respond.

TRADE mode "OFF"

Press: **653508 + play** on the user remote.

Message: **"TRAY LOCKED"** is displayed.

The DVD player in the TV is now in **"TRADE" mode**.
When pressing "Eject" key the player does not respond.

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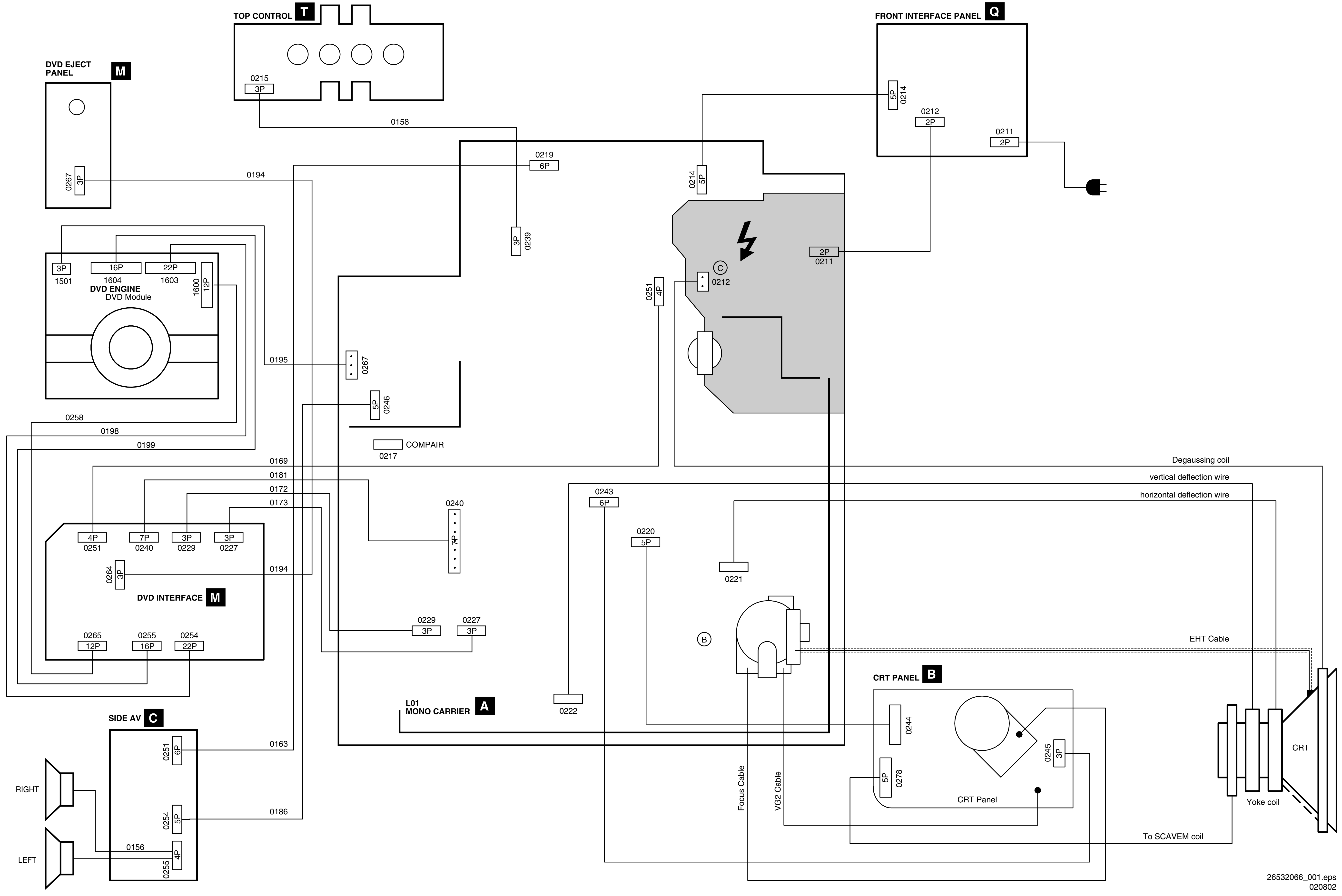
Figure 5-5 DVD trade mode flow chart

For more information on test instructions and diagnostic software description of the DVD module see service manual DVD-module SD3 (3122 785 11010).

Personal Notes:

6. Wiring, I2C and Supply Voltage Diagram

Wiring Diagram


TOP CONTROL T
0215
3P
0158
FRONT INTERFACE PANEL Q
5P
0214
0212
2P
0211
2P
DVD EJECT PANEL M
0267
3P
0194
0219
6P
0214
5P
3P
0239
2P
0211
C
0212
0251
4P
3P
1501
16P
1604
22P
1603
1600
12P
DVD ENGINE
DVD Module
0195
0267
5P
0246
0258
0198
0199
COMPAIR
0217
0169
0181
0172
0173
Degaussing coil
vertical deflection wire
horizontal deflection wire
0243
6P
0240
7P
0220
5P
0221
4P
0251
7P
0240
3P
0229
3P
0227
0264
3P
0194
DVD INTERFACE M
0265
12P
0255
16P
0254
22P
0229
3P
0227
3P
B
EHT Cable
CRT PANEL B
L01
MONO CARRIER A
0222
SIDE AV C
0251
6P
0163
0244
0245
3P
CRT
RIGHT
0254
5P
0186
5P
0278
CRT Panel
Focus Cable
VG2 Cable
Yoke coil
LEFT
0156
4P
0255
To SCAVEM coil

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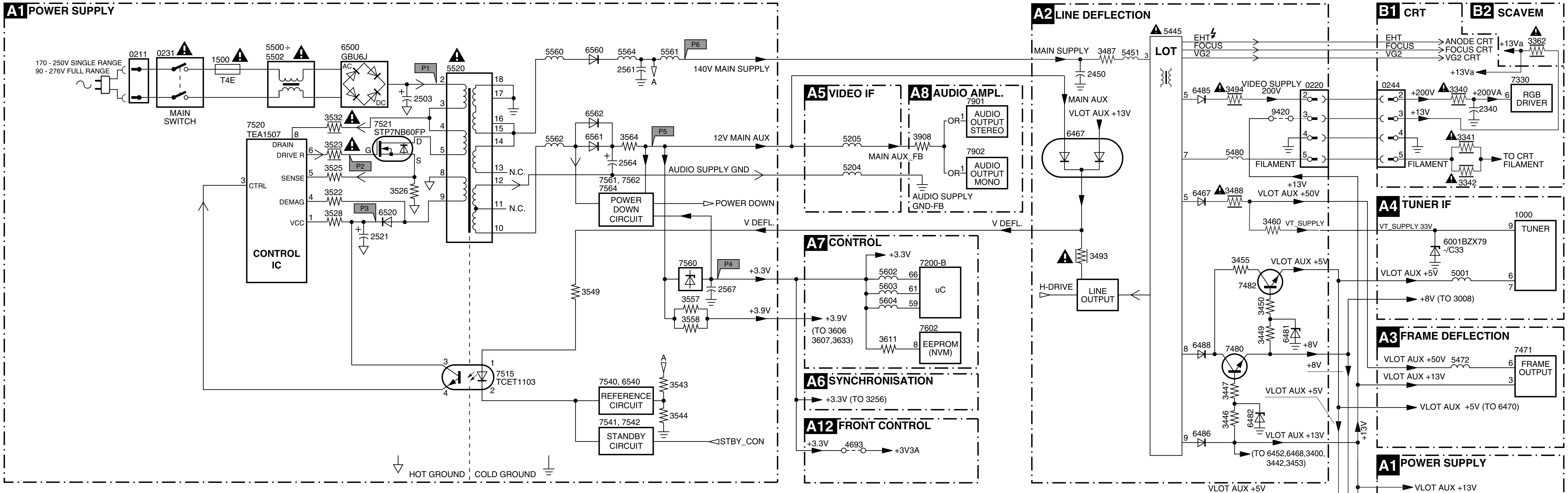
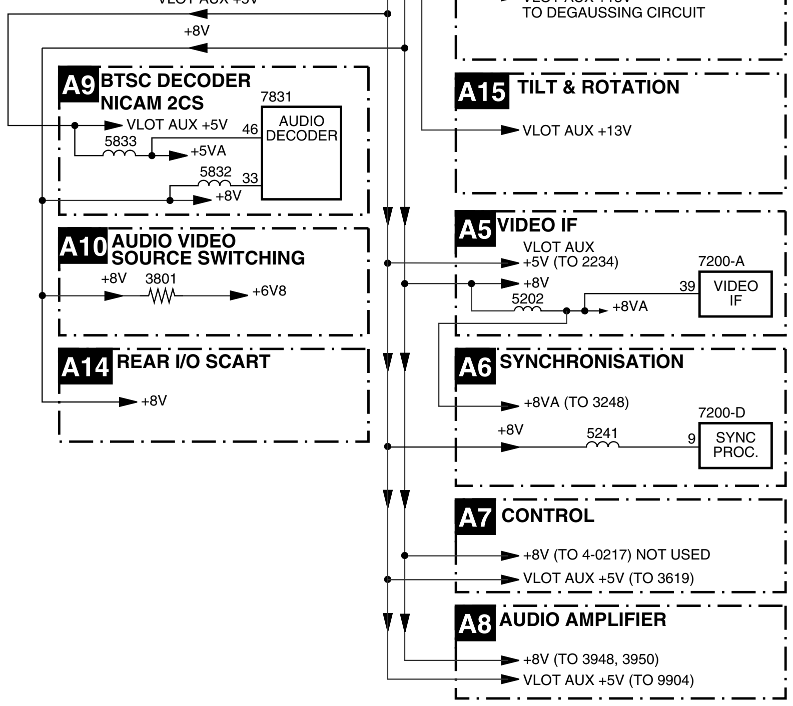
I2C and Supply Voltage Diagram


A1 POWER SUPPLY
170 - 250V SINGLE RANGE
90 - 276V FULL RANGE
0211
0231
MAIN SWITCH
1500
T4E
5500÷5502
6500
GBU6J
P1
5520
2503
7520
TEA1507
DRAIN
DRIVE R
SENSE
DEMAG
VCC
CTRL
CONTROL IC
3532
3523
3525
3522
3528
7521
STP7NB60FP
P2
P3
6520
2521
3526
3549
N.C.
5560
6560
5564
5561
P6
2561
140V MAIN SUPPLY
6562
6561
5562
3564
P5
2564
12V MAIN AUX
AUDIO SUPPLY GND
7561, 7562
7564
POWER DOWN CIRCUIT
POWER DOWN
V DEFL.
7560
P4
2567
3557
3558
+3.3V
+3.9V
7515
TCET1103
7540, 6540
REFERENCE CIRCUIT
7541, 7542
STANDBY CIRCUIT
3543
3544
STBY_CON
HOT GROUND
COLD GROUND
A5 VIDEO IF
5205
5204
MAIN AUX_FB
A8 AUDIO AMPL.
3908
7901
AUDIO OUTPUT STEREO
7902
AUDIO OUTPUT MONO
AUDIO SUPPLY GND-FB
A7 CONTROL
7200-B
uC
5602
5603
5604
3611
7602
EEPROM (NVM)
(TO 3606 3607,3633)
A6 SYNCHRONISATION
+3.3V (TO 3256)
A12 FRONT CONTROL
4693
+3V3A
A2 LINE DEFLECTION
MAIN SUPPLY
3487
5451
2450
5445
LOT
EHT
FOCUS
VG2
MAIN AUX
VLOT AUX +13V
6467
3493
H-DRIVE
LINE OUTPUT
6485
3494
VIDEO SUPPLY 200V
0220
9420
5480
FILAMENT
6467
3488
VLOT AUX +50V
3460
VT_SUPPLY
3455
VLOT AUX +5V
7482
3450
3449
6481
6488
7480
+8V
3447
3446
6482
6486
(TO 6452,6468,3400, 3442,3453)
+13V
B1 CRT
B2 SCAVEM
ANODE CRT
FOCUS CRT
VG2 CRT
+13Va
3362
0244
+200V
3340
+200VA
7330
RGB DRIVER
2340
3341
TO CRT FILAMENT
3342
A4 TUNER IF
1000
TUNER
VT_SUPPLY 33V
6001BZX79 -/C33
5001
+8V (TO 3008)
A3 FRAME DEFLECTION
7471
5472
FRAME OUTPUT
VLOT AUX +5V (TO 6470)


VLOT AUX +5V
+8V
A9 BTSC DECODER NICAM 2CS
7831
AUDIO DECODER
5833
+5VA
5832
A10 AUDIO VIDEO SOURCE SWITCHING
3801
+6V8
A14 REAR I/O SCART
A1 POWER SUPPLY
VLOT AUX +13V TO DEGAUSSING CIRCUIT
A15 TILT & ROTATION
A5 VIDEO IF
VLOT AUX +5V (TO 2234)
7200-A
5202
+8VA
VIDEO IF
A6 SYNCHRONISATION
+8VA (TO 3248)
7200-D
5241
SYNC PROC.
A7 CONTROL
+8V (TO 4-0217) NOT USED
VLOT AUX +5V (TO 3619)
A8 AUDIO AMPLIFIER
+8V (TO 3948, 3950)
VLOT AUX +5V (TO 9904)

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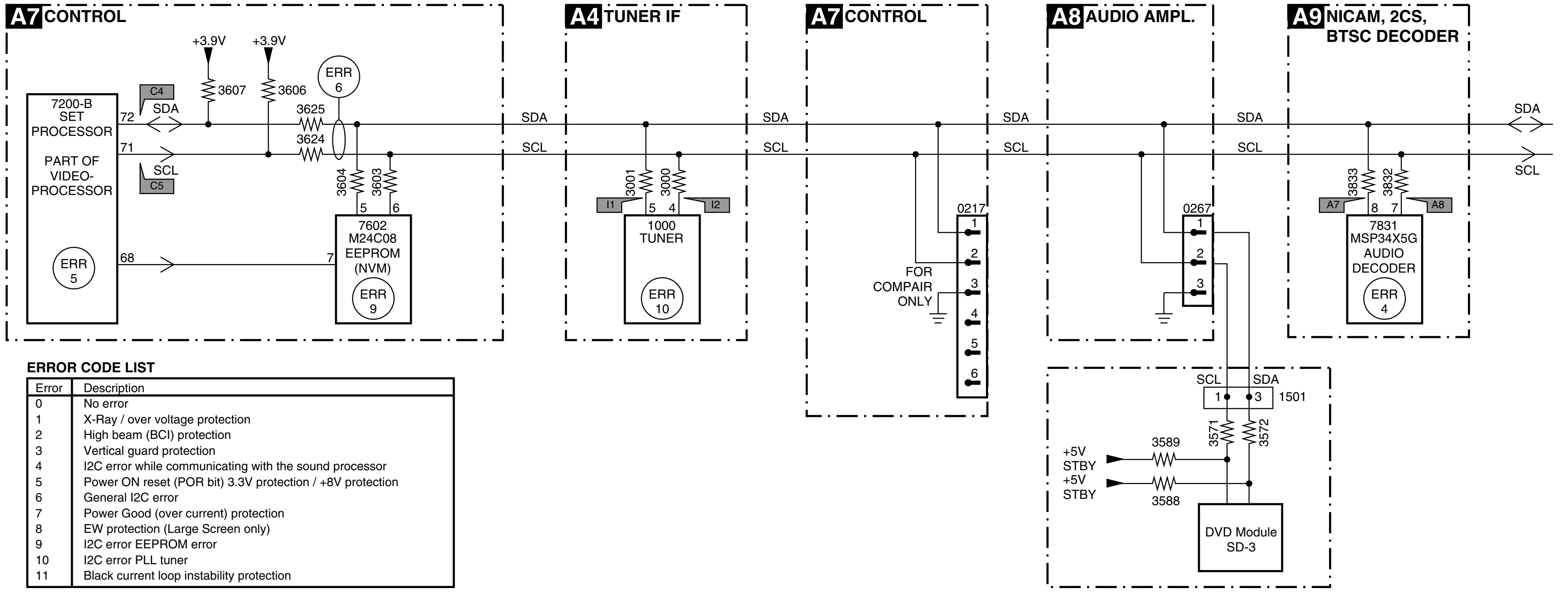
I2C BUS INTERCONNECTION DIAGRAM

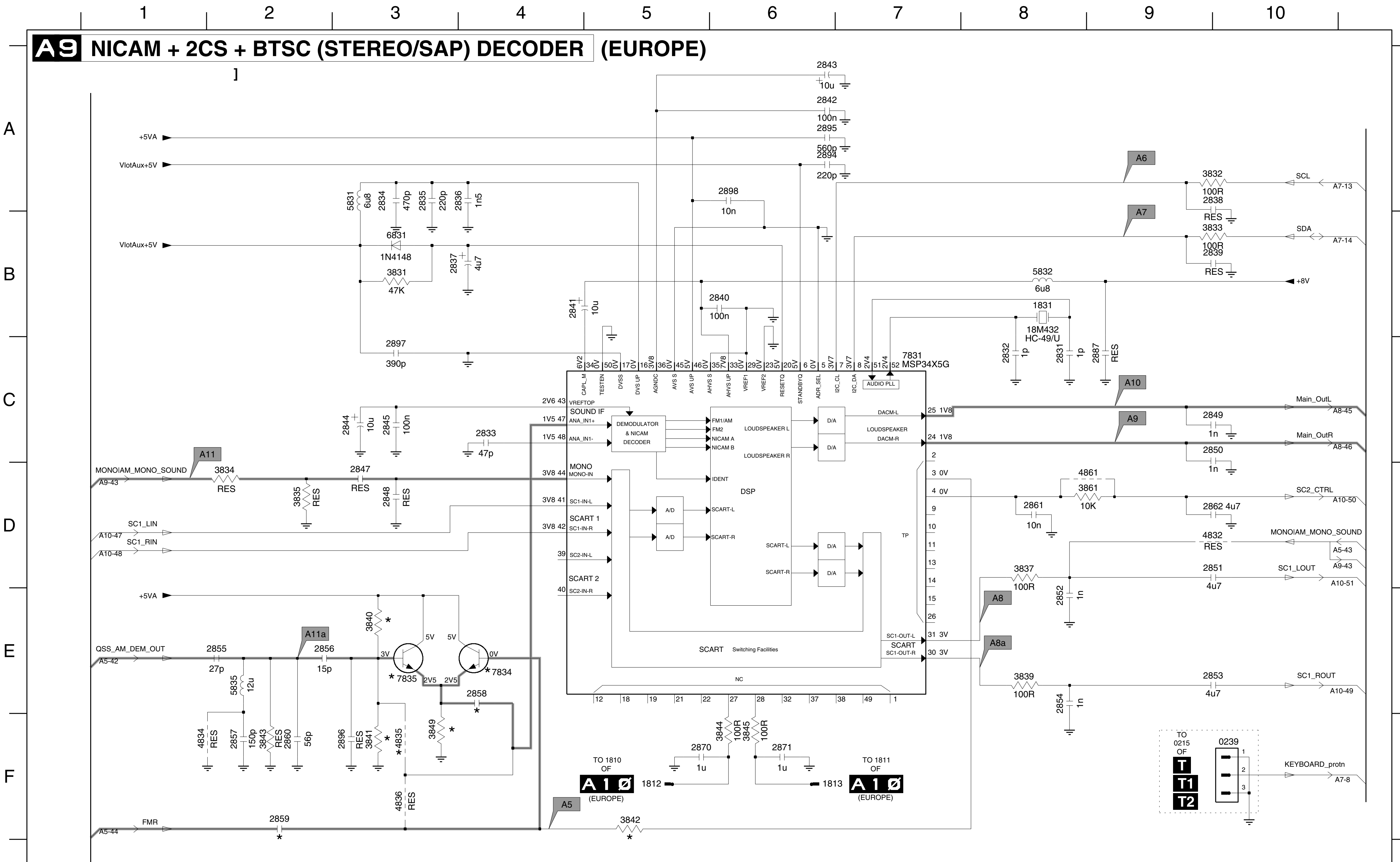

A7 CONTROL
7200-B SET PROCESSOR
PART OF VIDEO-PROCESSOR
ERR 5
C4
SDA
SCL
C5
+3.9V
3607
3606
ERR 6
3625
3624
3604
3603
7602
M24C08
EEPROM (NVM)
ERR 9
A4 TUNER IF
3001
3000
I1
I2
1000
TUNER
ERR 10
A7 CONTROL
0217
FOR COMPAIR ONLY
A8 AUDIO AMPL.
0267
A9 NICAM, 2CS, BTSC DECODER
3833
3832
7831
MSP34X5G
AUDIO DECODER
ERR 4
SCL
SDA
1501
3571
3572
3589
3588
+5V STBY
DVD Module SD-3

ERROR CODE LIST

Error	Description
0	No error
1	X-Ray / over voltage protection
2	High beam (BCI) protection
3	Vertical guard protection
4	I2C error while communicating with the sound processor
5	Power ON reset (POR bit) 3.3V protection / +8V protection
6	General I2C error
7	Power Good (over current) protection
8	EW protection (Large Screen only)
9	I2C error EEPROM error
10	I2C error PLL tuner
11	Black current loop instability protection

7. Electrical Diagrams and PWB's

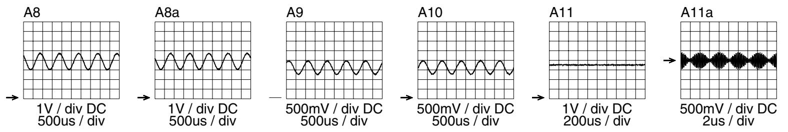
Mono Carrier: NICAM + 2CS + BTSC (Stereo / SAP) Decoder


A9 NICAM + 2CS + BTSC (STEREO/SAP) DECODER (EUROPE)
1 2 3 4 5 6 7 8 9 10
A B C D E F G
+5VA
VlotAux+5V
VlotAux+5V
5831 6u8
2834 470p
2835 220p
2836 1n5
6831 1N4148
2837 4u7
3831 47K
2897 390p
2843 10u
2842 100n
2895 560p
2894 220p
2898 10n
2841 10u
2840 100n
A6
A7
3832 100R
2838 RES
SCL A7-13
3833 100R
2839 RES
SDA A7-14
5832 6u8
+8V
1831 18M432 HC-49/U
2832 1p
2831 1p
2887 RES
7831 MSP34X5G
CAPL_M TESTEN DVSS DVS UP AGNDC AVS S AVS UP AHVS S AHVS UP VREF1 VREF2 RESETQ STANDBYQ ADR_SEL I2C_CL I2C_DA
AUDIO PLL
VREFTOP
SOUND IF
ANA_IN1+
ANA_IN1-
DEMODULATOR & NICAM DECODER
FM1/AM FM2 NICAM A NICAM B
LOUDSPEAKER L
LOUDSPEAKER R
IDENT
DSP
D/A
DACM-L
DACM-R
LOUDSPEAKER
MONO MONO-IN
SC1-IN-L
SCART 1 SC1-IN-R
SC2-IN-L
SCART 2 SC2-IN-R
A/D
SCART-L SCART-R
TP
SC1-OUT-L SCART SC1-OUT-R
SCART Switching Facilities
NC
2844 10u
2845 100n
2833 47p
A11
MONO\AM_MONO_SOUND A9-43
3834 RES
2847 RES
3835 RES
2848 RES
SC1_LIN A10-47
SC1_RIN A10-48
A10
A9
Main_OutL A8-45
2849 1n
Main_OutR A8-46
2850 1n
4861
3861 10K
2861 10n
2862 4u7
SC2_CTRL A10-50
4832 RES
MONO\AM_MONO_SOUND A5-43
A9-43
3837 100R
2851 4u7
SC1_LOUT A10-51
2852 1n
A8
A8a
3839 100R
2853 4u7
SC1_ROUT A10-49
2854 1n
+5VA
3840
A11a
QSS_AM_DEM_OUT A5-42
2855 27p
2856 15p
5835 12u
7835
7834
2858
3849
4834 RES
2857 150p
3843 RES
2860 56p
2896 RES
3841
4835
4836 RES
3844 100R
3845 100R
2870 1u
2871 1u
TO 1810 OF A10 (EUROPE) 1812
1813 TO 1811 OF A10 (EUROPE)
TO 0215 OF T T1 T2
0239
KEYBOARD_protn A7-8
A5
FMR A5-44
2859
3842
VlotAux+5V
5833 6u8
+5VA
2846 100u

ITEM	WITH MON. OUT	WITHOUT MON. OUT
2581	JUMPER	4u7
2853	JUMPER	4u7

ITEM	SNDSYS-NI/GS/RD/VD-EU	SNDSYS NI/GS/RD/CL-EU	SNDSYS NI/GS/RL-EU	SNDSYS NI/GS/RD/FM/AM-EU
7831	MSP3411G	MSP3415	MSP3415	MSP3415B8 FM

ITEM	WITH MON. OUT	WITHOUT MON. OUT
2862	---	4u7
3836	1K	---
3837	100R	---
3838	1K	---
3839	100R	---
3844	---	100R
3845	---	100R
3861	---	10K
7832	BC847B	---
7833	BC847B	---



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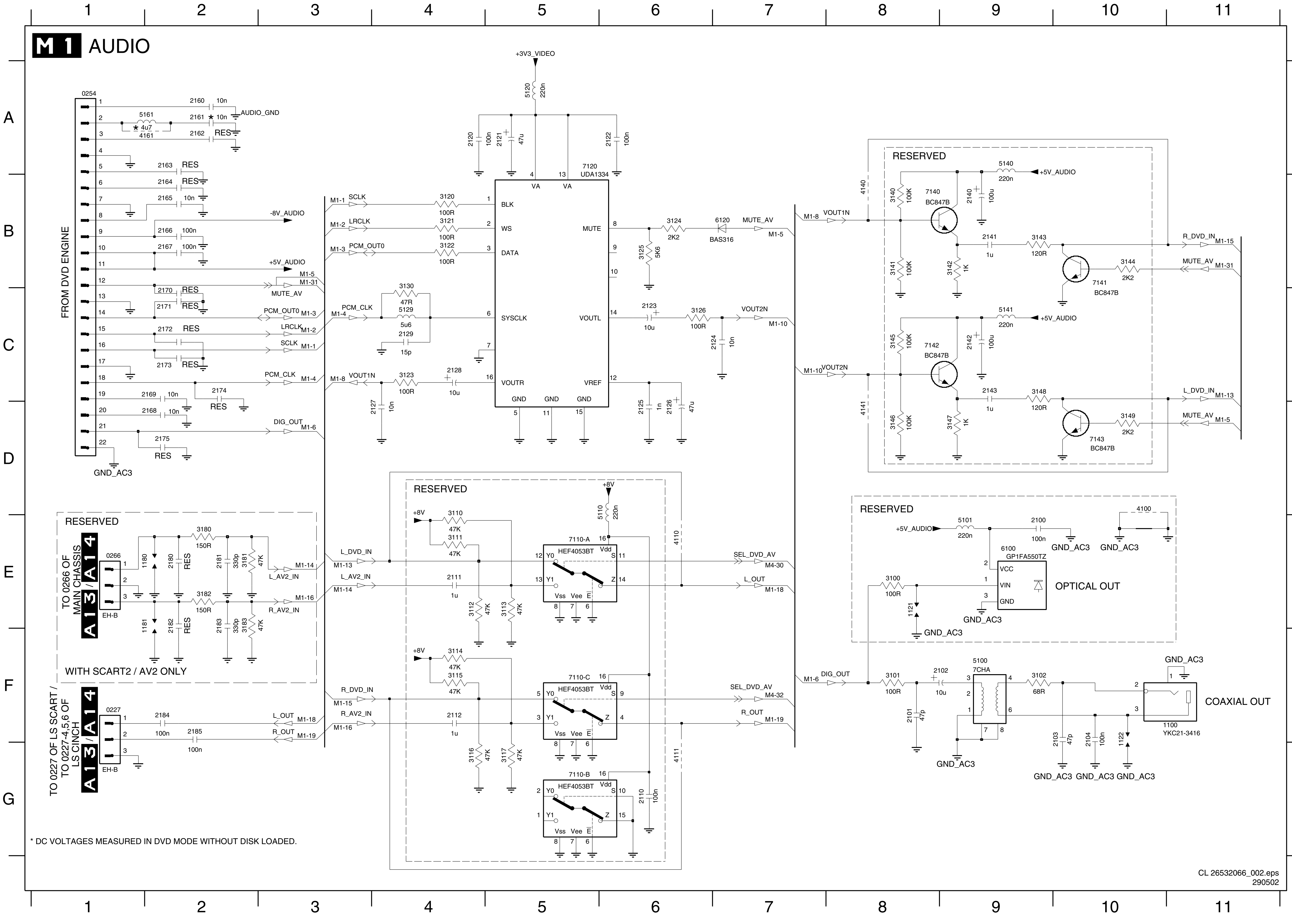
0239	F10
1812	F5
1813	F7
1831	B8
2831	C8
2832	C8
2833	C4
2834	A3
2835	A3
2836	A4
2837	B3
2838	A10
2839	B10
2840	B6
2841	B4
2842	A6
2843	A6
2844	C3
2845	C3
2846	G1
2847	D3
2848	D3
2849	C10
2850	C10
2851	D10
2852	E8
2853	E10
2854	E8
2855	E2
2856	E2
2857	F2
2858	E4
2859	F2
2860	F2
2861	D8
2862	D10
2870	F5
2871	F6
2887	C9
2894	A6
2895	A6
2896	F3
2897	C3
2898	A6
3831	B3
3832	A10
3833	B10
3834	D2
3835	D2
3837	D8
3839	E8
3840	E3
3841	F3
3842	F5
3843	F2
3844	F6
3845	F6
3849	F3
3861	D9
4832	D10
4834	F1
4835	F3
4836	F3
4861	D9
5831	A3
5832	B8
5833	G2
5835	E2
6831	B3
7831	C7
7834	E4
7835	E3

DVD Interface Panel: Audio


M 1 AUDIO
FROM DVD ENGINE
0254
AUDIO_GND
-8V_AUDIO
+5V_AUDIO
MUTE_AV
PCM_OUT0
LRCLK
SCLK
PCM_CLK
DIG_OUT
GND_AC3
+3V3_VIDEO
7120
UDA1334
BLK
WS
DATA
SYSCLK
VOUTR
MUTE
VOUTL
VREF
VA
GND
6120
BAS316
VOUT1N
VOUT2N
RESERVED
7140
BC847B
7141
BC847B
7142
BC847B
7143
BC847B
R_DVD_IN
L_DVD_IN
+8V
7110-A
HEF4053BT
7110-B
HEF4053BT
7110-C
HEF4053BT
SEL_DVD_AV
L_OUT
R_OUT
L_AV2_IN
R_AV2_IN
TO 0266 OF MAIN CHASSIS
A13 A14
0266
EH-B
WITH SCART2 / AV2 ONLY
TO 0227 OF LS SCART / TO 0227-4,5,6 OF LS CINCH
0227
6100
GP1FA550TZ
VCC
VIN
GND
OPTICAL OUT
4100
5100
7CHA
1100
YKC21-3416
COAXIAL OUT
* DC VOLTAGES MEASURED IN DVD MODE WITHOUT DISK LOADED.
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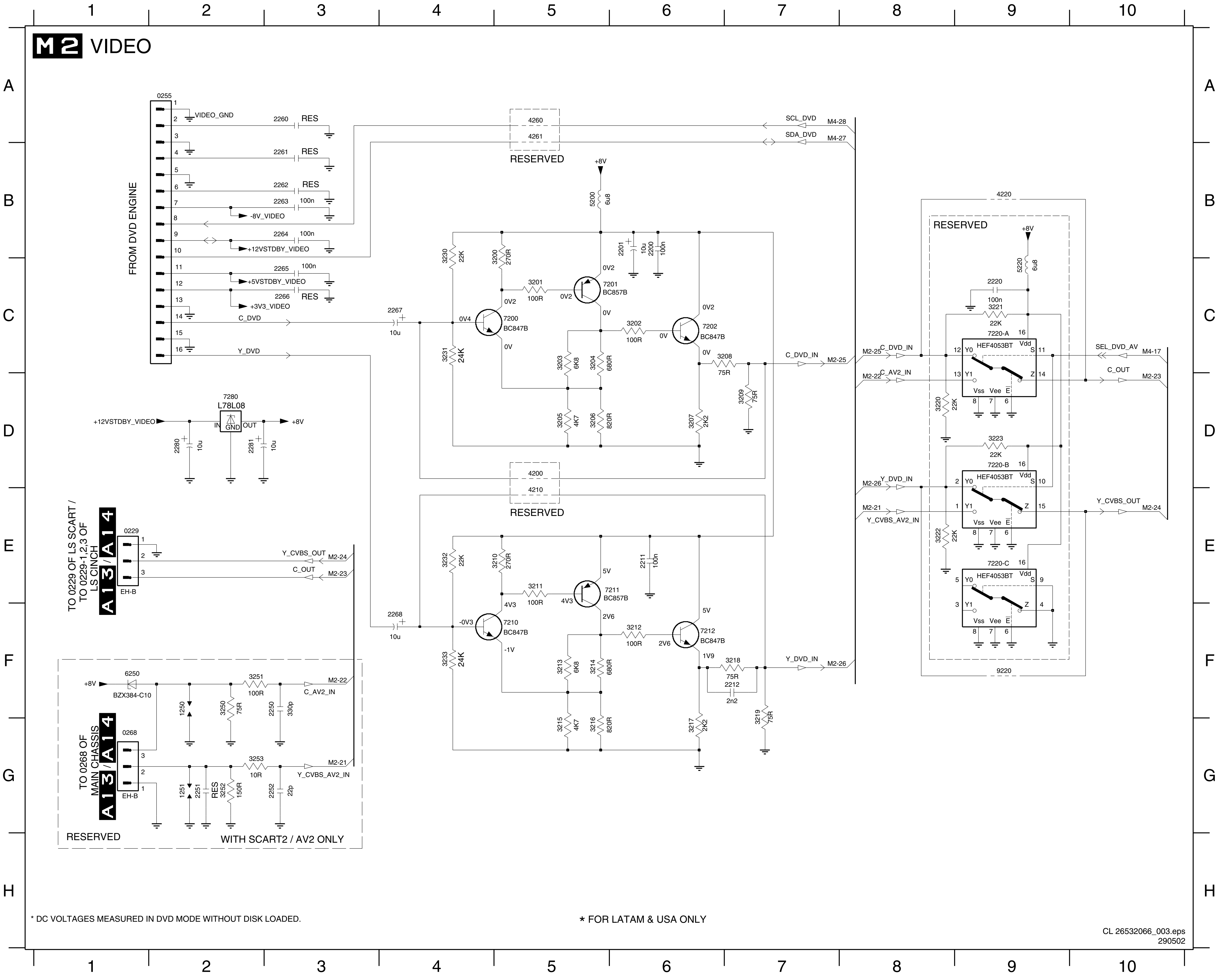
290502

0227 F1	5100 F9
0254 A1	5101 E9
0266 E1	5110 D6
1100 F10	5120 A5
1121 E8	5129 C4
1122 F10	5140 A9
1180 E1	5141 C9
1181 E1	5161 A2
2100 E9	6100 E9
2101 F8	6120 B7
2102 F9	7110-A E5
2103 F10	7110-B G5
2104 F10	7110-C F5
2110 G6	7120 A5
2111 E4	7140 B8
2112 F4	7141 B10
2120 A4	7142 C8
2121 A5	7143 D10
2122 A6	
2123 C6	
2124 C7	
2125 D6	
2126 D6	
2127 D4	
2128 C4	
2129 C4	
2140 B9	
2141 B9	
2142 C9	
2143 C9	
2160 A2	
2161 A2	
2162 A2	
2163 A2	
2164 B2	
2165 B2	
2166 B2	
2167 B2	
2168 D2	
2169 C2	
2170 C2	
2171 C2	
2172 C2	
2173 C2	
2174 C2	
2175 D2	
2180 E2	
2181 E2	
2182 E2	
2183 E2	
2184 F2	
2185 F2	
3100 E8	
3101 F8	
3102 F9	
3110 E4	
3111 E4	
3112 E4	
3113 E5	
3114 F4	
3115 F4	
3116 G4	
3117 G5	
3120 B4	
3121 B4	
3122 B4	
3123 C4	
3124 B6	
3125 B6	
3126 C6	
3130 C4	
3140 B8	
3141 B8	
3142 B9	
3143 B9	
3144 B10	
3145 C8	
3146 D8	
3147 D9	
3148 C9	
3149 D10	
3180 E2	
3181 E2	
3182 E2	
3183 E2	
4100 D10	
4110 E6	
4111 G6	
4140 B8	
4141 D8	
4161 A2	

DVD Interface Panel: Video


M2 VIDEO
FROM DVD ENGINE
0255
VIDEO_GND
-8V_VIDEO
+12VSTDBY_VIDEO
+5VSTDBY_VIDEO
+3V3_VIDEO
C_DVD
Y_DVD
RES
100n
SCL_DVD
SDA_DVD
M4-28
M4-27
4260
4261
RESERVED
+8V
5200 6u8
7200 BC847B
7201 BC857B
7202 BC847B
7210 BC847B
7211 BC857B
7212 BC847B
2267 10u
2268 10u
C_DVD_IN
Y_DVD_IN
M2-25
M2-26
4200
4210
7280 L78L08
+12VSTDBY_VIDEO
IN GND OUT
2280 10u
2281 10u
TO 0229 OF LS SCART / TO 0229-1,2,3 OF LS CINCH
A13/A14
0229
EH-B
Y_CBVS_OUT
C_OUT
M2-24
M2-23
6250 BZX384-C10
3251 100R
3253 10R
C_AV2_IN
Y_CVBS_AV2_IN
M2-22
M2-21
TO 0268 OF MAIN CHASSIS
0268
RESERVED
WITH SCART2 / AV2 ONLY
4220
9220
7220-A HEF4053BT
7220-B HEF4053BT
7220-C HEF4053BT
SEL_DVD_AV
M4-17
Y_CVBS_OUT
5220 6u8
2220 100n
3221 22K
3223 22K
3220 22K
3222 22K
Vss Vee E
Vdd

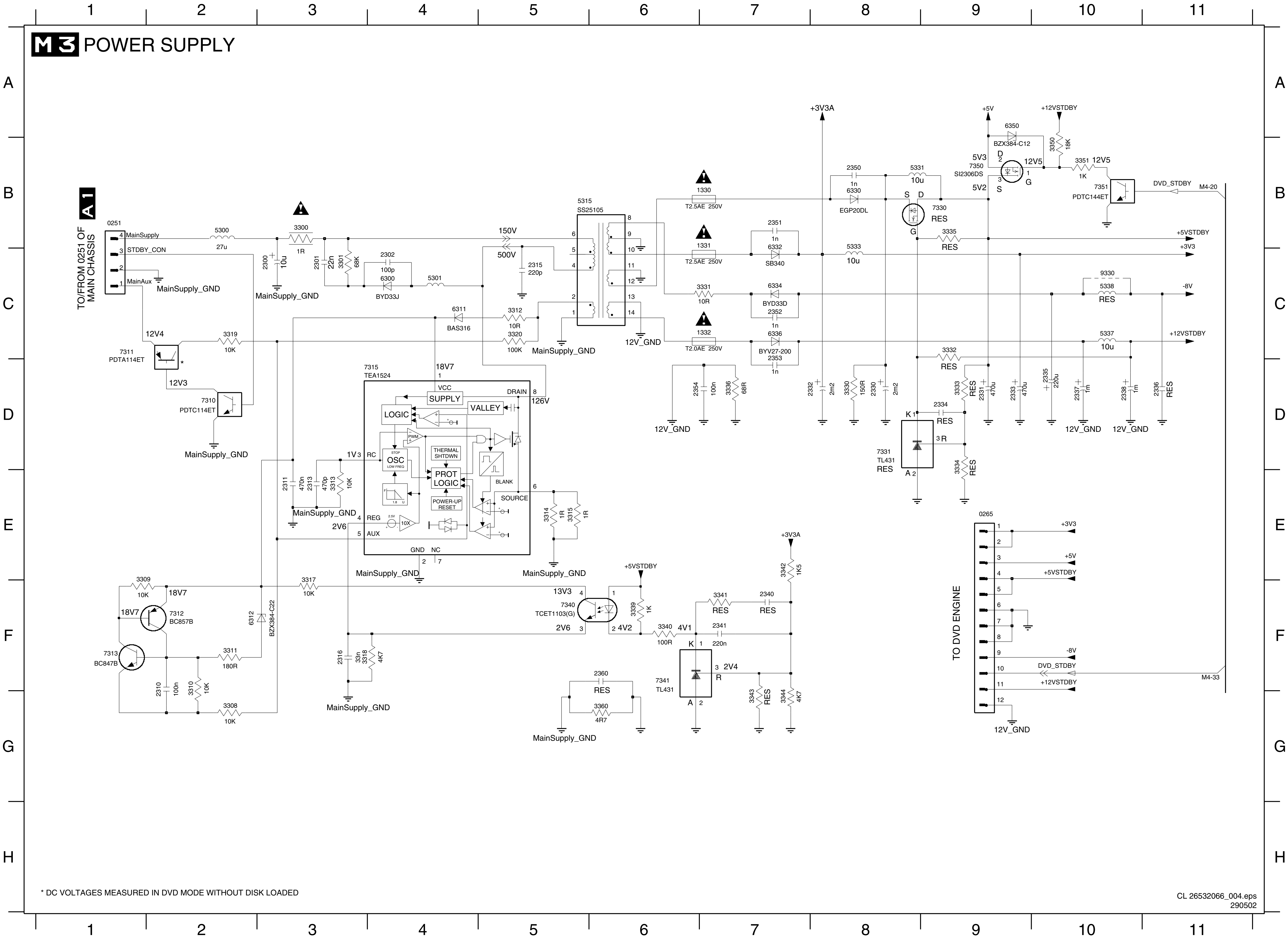
* DC VOLTAGES MEASURED IN DVD MODE WITHOUT DISK LOADED.

* FOR LATAM & USA ONLY

CL 26532066_003.eps
290502

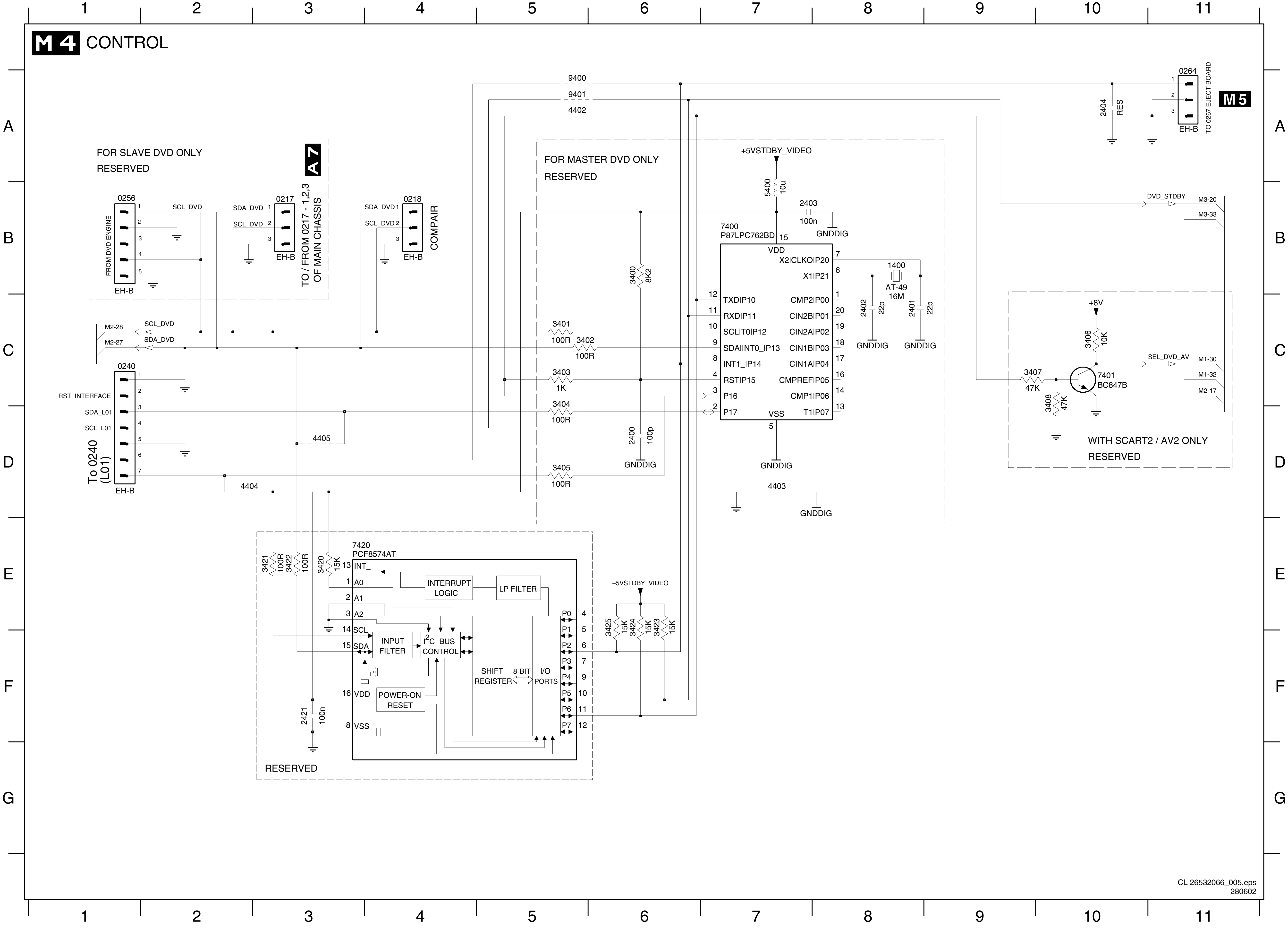
0229	E1
0255	A2
0268	G1
1250	F2
1251	G2
2200	B6
2201	B6
2211	E6
2212	F7
2220	C9
2250	F3
2251	G2
2252	G3
2260	A3
2261	B3
2262	B3
2263	B3
2264	B3
2265	C3
2266	C3
2267	C4
2268	F4
2280	D2
2281	D2
3200	B5
3201	C5
3202	C6
3203	C5
3204	C5
3205	D5
3206	D5
3207	D6
3208	C7
3209	D7
3210	E5
3211	E5
3212	F6
3213	F5
3214	F5
3215	G5
3216	G5
3217	G6
3218	F7
3219	F7
3220	D8
3221	C9
3222	E8
3223	D9
3230	B4
3231	C4
3232	E4
3233	F4
3250	F2
3251	F2
3252	G2
3253	G2
4200	D5
4210	E5
4220	B9
4260	A5
4261	A5
5200	B5
5220	C9
6250	F1
7200	C5
7201	C5
7202	C6
7210	F5
7211	E5
7212	F6
7220-A	C9
7220-B	D9
7220-C	E9
7280	D2
9220	F9

DVD Interface Panel: Power Supply


M3 POWER SUPPLY
A1
TO/FROM 0251 OF MAIN CHASSIS
0251
MainSupply
STDBY_CON
MainAux
MainSupply_GND
5300 27u
3300 1R
2300 10u
2301 22n
3301 68K
2302 100p
6300 BYD33J
5301
150V
500V
2315 220p
5315 SS25105
1330 T2.5AE 250V
1331 T2.5AE 250V
1332 T2.0AE 250V
6311 BAS316
3312 10R
3320 100K
3319 10K
12V4
12V3
7311 PDTA114ET
7310 PDTC114ET
7315 TEA1524
18V7
VCC
SUPPLY
VALLEY
DRAIN
126V
LOGIC
PWM
THERMAL SHTDWN
STOP OSC LOW FREQ
PROT LOGIC
POWER-UP RESET
BLANK
SOURCE
1V3 RC
REG
2V6 AUX
GND NC
2311 470n
2313 470p
3313 10K
3314 1R
3315 1R
3309 10K
18V7
7312 BC857B
7313 BC847B
3311 180R
2310 100n
3310 10K
3308 10K
6312 BZX384-C22
3317 10K
13V3
2V6
2316 33n
3318 4K7
7340 TCET1103(G)
+5VSTDBY
3339 1K
4V2
3340 100R
4V1
2341 220n
3341 RES
2340 RES
+3V3A
3342 1K5
7341 TL431
2V4
3343 RES
3344 4K7
2360 RES
3360 4R7
12V_GND
2354 100n
3336 68R
2351 1n
6332 SB340
3331 10R
6334 BYD33D
2352 1n
6336 BYV27-200
2353 1n
2350 1n
6330 EGP20DL
5331 10u
5333 10u
7330 RES
3335 RES
3332 RES
2332 2m2
3330 150R
2330 2m2
3333 RES
2331 470u
2333 470u
2335 220u
2337 1m
2338 1m
2336 RES
2334 RES
7331 TL431 RES
3334 RES
+5V
+12VSTDBY
6350 BZX384-C12
3350 18K
5V3
7350 SI2306DS
5V2
12V5
3351 1K
7351 PDTC144ET
DVD_STDBY
M4-20
+5VSTDBY
+3V3
9330
5338 RES
-8V
5337 10u
+12VSTDBY
0265
TO DVD ENGINE
+3V3
+5V
+5VSTDBY
-8V
DVD_STDBY
+12VSTDBY
M4-33
* DC VOLTAGES MEASURED IN DVD MODE WITHOUT DISK LOADED
CL 26532066_004.eps
290502

0251	B1
0265	E9
1330	B7
1331	B7
1332	C7
2300	C3
2301	C3
2302	C4
2310	F2
2311	E3
2313	E3
2315	C5
2316	F3
2330	D8
2331	D9
2332	D8
2333	D9
2334	D9
2335	D10
2336	D11
2337	D10
2338	D10
2340	F7
2341	F7
2350	B8
2351	B7
2352	C7
2353	D7
2354	D6
2360	F6
3300	B3
3301	C3
3308	G2
3309	F1
3310	F2
3311	F2
3312	C5
3313	E3
3314	E5
3315	E5
3317	F3
3318	F3
3319	C2
3320	C5
3330	D8
3331	C7
3332	C9
3333	D9
3334	D9
3335	B9
3336	D7
3339	F6
3340	F6
3341	F7
3342	E7
3343	G7
3344	G7
3350	B10
3351	B10
3360	G6
5300	B2
5301	C4
5315	B5
5331	B8
5333	C8
5337	C10
5338	C10
6300	C4
6311	C4
6312	F2
6330	B8
6332	C7
6334	C7
6336	C7
6350	A9
7310	D2
7311	C1
7312	F2
7313	F1
7315	D3
7330	B9
7331	D8
7340	F5
7341	F6
7350	B9
7351	B10
9330	C10

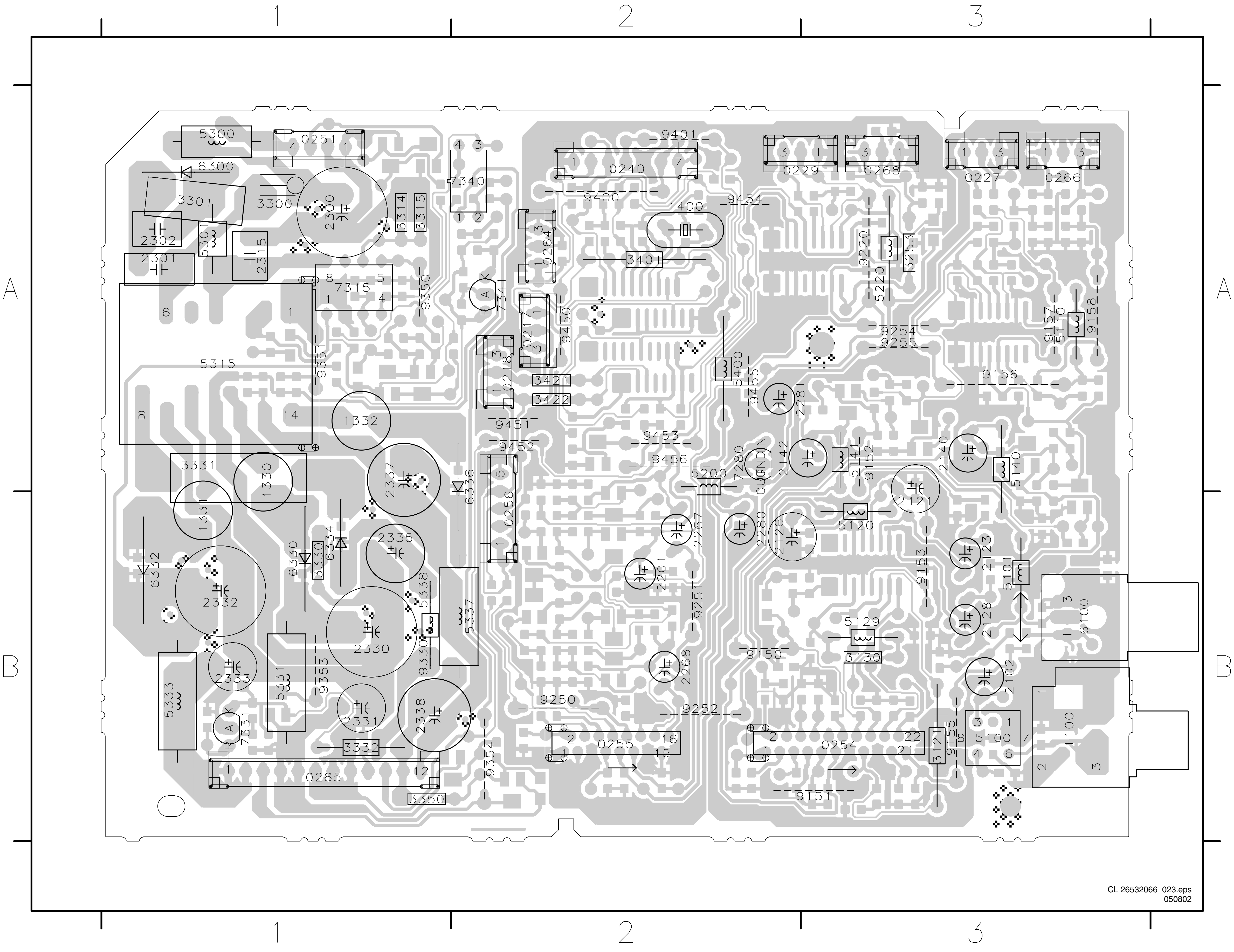
DVD Interface Panel: Control



M 4 CONTROL
1 2 3 4 5 6 7 8 9 10 11
A B C D E F G
9400
9401
4402
0264
TO 0267 EJECT BOARD
M 5
2404 RES
EH-B
FOR SLAVE DVD ONLY
RESERVED
A 7
0256
FROM DVD ENGINE
SCL_DVD
SDA_DVD
0217
TO / FROM 0217 - 1,2,3 OF MAIN CHASSIS
0218
COMPAIR
FOR MASTER DVD ONLY
RESERVED
+5VSTDBY_VIDEO
5400 10u
2403 100n
GNDDIG
7400 P87LPC762BD
VDD
X2|CLKO|P20
X1|P21
TXD|P10
RXD|P11
SCL|T0|P12
SDA|INT0_|P13
INT1_|P14
RST|P15
P16
P17
VSS
CMP2|P00
CIN2B|P01
CIN2A|P02
CIN1B|P03
CIN1A|P04
CMPREF|P05
CMP1|P06
T1|P07
1400 AT-49 16M
2402 22p
2401 22p
3400 8K2
2400 100p
3401 100R
3402 100R
3403 1K
3404 100R
3405 100R
4403
4404
4405
M2-28
M2-27
0240
RST_INTERFACE
SDA_L01
SCL_L01
To 0240 (L01)
DVD_STDBY
M3-20
M3-33
+8V
3406 10K
3407 47K
3408 47K
7401 BC847B
SEL_DVD_AV
M1-30
M1-32
M2-17
WITH SCART2 / AV2 ONLY
RESERVED
7420 PCF8574AT
3421 100R
3422 100R
3420 15K
INT_
A0
A1
A2
SCL
SDA
VDD
VSS
INTERRUPT LOGIC
LP FILTER
INPUT FILTER
I²C BUS CONTROL
POWER-ON RESET
SHIFT REGISTER
8 BIT
I/O PORTS
P0 P1 P2 P3 P4 P5 P6 P7
2421 100n
+5VSTDBY_VIDEO
3425 15K
3424 15K
3423 15K
RESERVED
CL 26532066_005.eps
280602

0217	B3
0218	B4
0240	C1
0256	B1
0264	A11
1400	B8
2400	D6
2401	C8
2402	C8
2403	B7
2404	A10
2421	F3
3400	B6
3401	C5
3402	C5
3403	C5
3404	D5
3405	D5
3406	C10
3407	C9
3408	C10
3420	E3
3421	E3
3422	E3
3423	E6
3424	E6
3425	E6
4402	A5
4403	D7
4404	D2
4405	D3
5400	B7
7400	B7
7401	C10
7420	E3
9400	A5
9401	A5

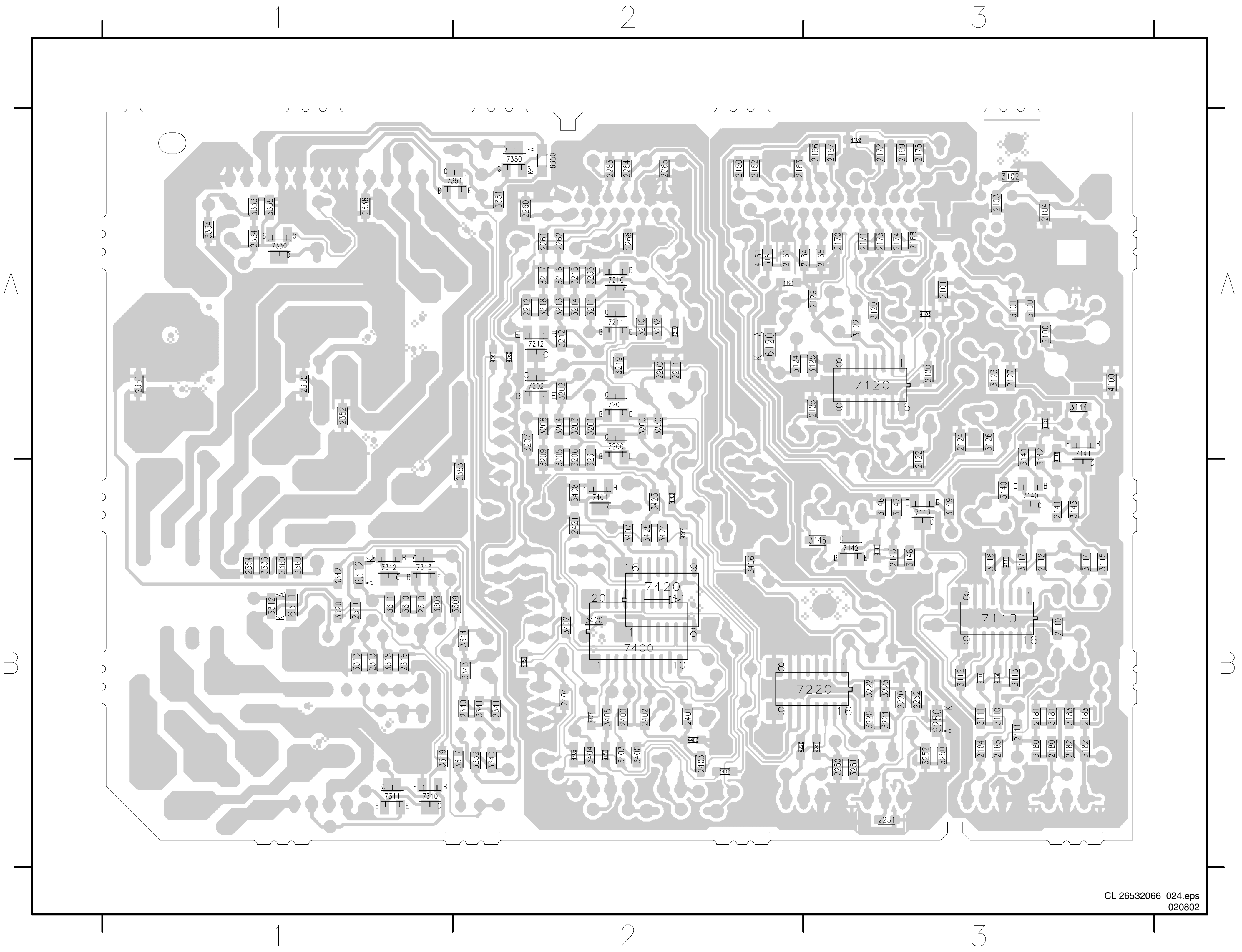
Layout DVD Interface Panel (Top View)


1
2
3
A
B
5300
0251
6300
3301
3300
2300
3314
3315
7340
9401
0240
9400
0229
0268
0227
0266
1400
9454
2302
5301
2315
2301
7315
9350
7341
0264
3401
9220
3253
5220
9157
5110
9158
5315
0217
9450
0218
3421
3422
9351
9254
9255
5400
9455
9156
1332
2281
9451
9452
9453
9456
3331
1330
2337
6336
5200
7280
2142
5141
9152
2140
5140
2121
1331
0256
2267
2280
2126
5120
6334
2335
6330
3330
9153
2123
6332
2332
2201
9251
5101
6100
5338
5337
2330
5129
2128
9330
3130
9150
2268
2102
2333
5331
9353
5333
7331
2331
2338
9250
9252
1100
3332
0255
0254
3121
9155
5100
0265
9354
3350
9151

CL 26532066_023.eps
050802

0217	A2
0218	A2
0227	A3
0229	A2
0240	A2
0251	A1
0254	B3
0255	B2
0256	B2
0264	A2
0265	B1
0266	A3
0268	A3
1100	B3
1330	A1
1331	B1
1332	A1
1400	A2
2102	B3
2121	B3
2123	B3
2126	B2
2128	B3
2140	A3
2142	A2
2201	B2
2267	B2
2268	B2
2280	B2
2281	A2
2300	A1
2301	A1
2302	A1
2315	A1
2330	B1
2331	B1
2332	B1
2333	B1
2335	B1
2337	A1
2338	B1
3121	B3
3130	B3
3253	A3
3300	A1
3301	A1
3314	A1
3315	A1
3330	B1
3331	A1
3332	B1
3350	B1
3401	A2
3421	A2
3422	A2
5100	B3
5101	B3
5110	A3
5120	B3
5129	B3
5140	A3
5141	A3
5200	A2
5220	A3
5300	A1
5301	A1
5315	A1
5331	B1
5333	B1
5337	B2
5338	B1
5400	A2
6100	B3
6300	A1
6330	B1
6332	B1
6334	B1
6336	A2
7280	A2
7315	A1
7331	B1
7340	A2
7341	A2
9150	B2
9151	B3
9152	A3
9153	B3
9155	B3
9156	A3
9157	A3
9158	A3
9220	A3
9250	B2
9251	B2
9252	B2
9254	A3
9255	A3
9330	B1
9350	A1
9351	A1
9353	B1
9354	B2
9400	A2
9401	A2
9450	A2
9451	A2
9452	A2
9453	A2
9454	A2
9455	A2
9456	A2

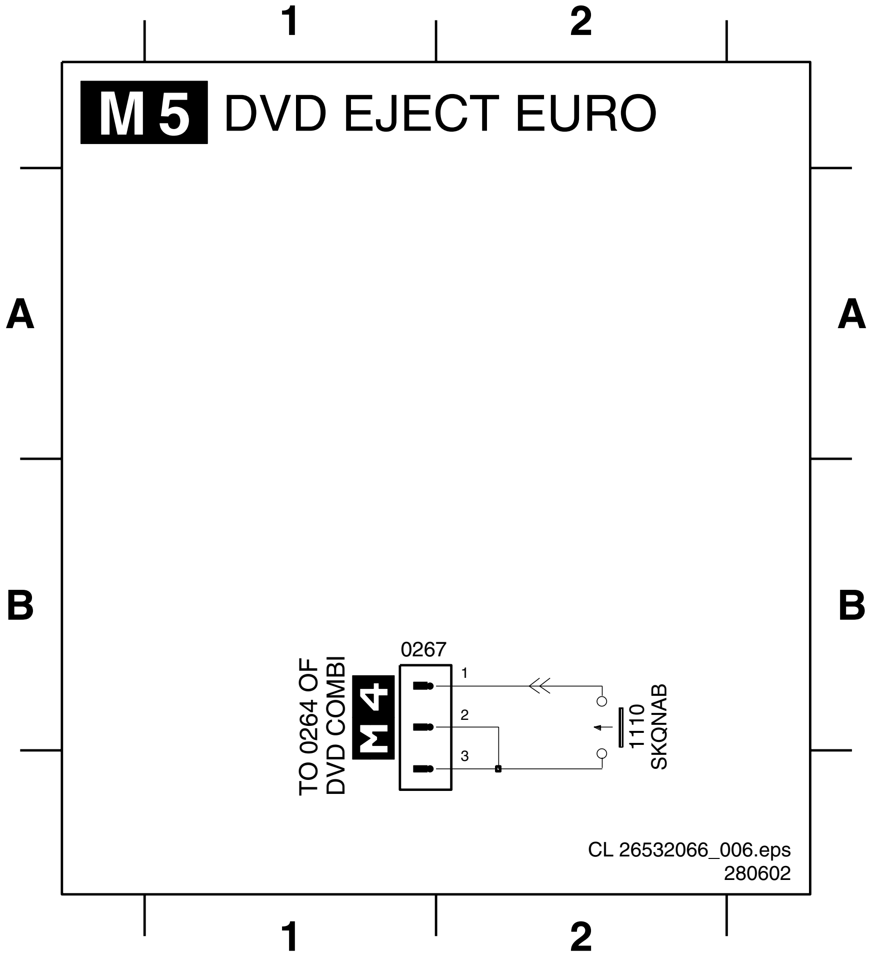
Layout DVD Interface Panel (Bottom Side)



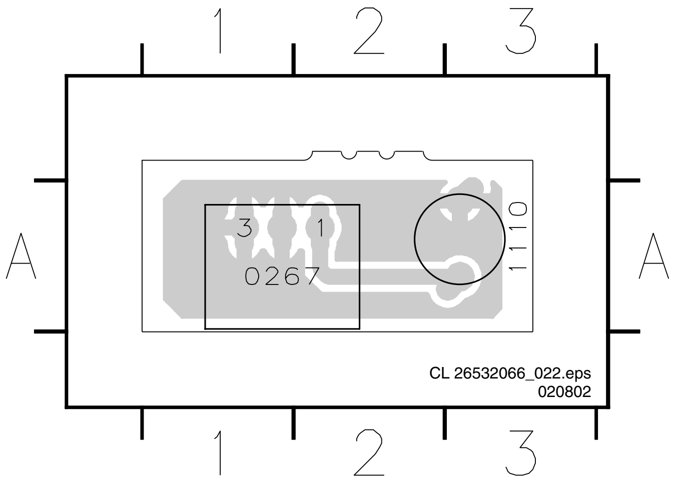
CL 26532066_024.eps
020802

2100	A3	3101	A3	3334	A1	7351	A2
2101	A3	3102	A3	3335	A1	7400	B2
2103	A3	3110	B3	3336	B1	7401	B2
2104	A3	3111	B3	3339	B2	7420	B2
2110	B3	3112	B3	3340	B2		
2111	B3	3113	B3	3341	B2		
2112	B3	3114	B3	3342	B1		
2120	A3	3115	B3	3343	B2		
2122	B3	3116	B3	3344	B2		
2124	A3	3117	B3	3351	A2		
2125	A3	3120	A3	3360	B1		
2127	A3	3122	A3	3400	B2		
2129	A3	3123	A3	3402	B2		
2141	B3	3124	A2	3403	B2		
2143	B3	3125	A3	3404	B2		
2160	A2	3126	A3	3405	B2		
2161	A2	3140	B3	3406	B2		
2162	A2	3141	A3	3407	B2		
2163	A2	3142	A3	3408	B2		
2164	A3	3143	B3	3420	B2		
2165	A3	3144	A3	3423	B2		
2166	A3	3145	B3	3424	B2		
2167	A3	3146	B3	3425	B2		
2168	A3	3147	B3	4100	A3		
2169	A3	3148	B3	4101	A3		
2170	A3	3149	B3	4102	A3		
2171	A3	3180	B3	4103	A3		
2172	A3	3181	B3	4104	A2		
2173	A3	3182	B3	4110	B3		
2174	A3	3183	B3	4111	B3		
2175	A3	3200	A2	4140	A3		
2180	B3	3201	A2	4141	B3		
2181	B3	3202	A2	4150	B3		
2182	B3	3203	A2	4161	A2		
2183	B3	3204	A2	4200	B2		
2184	B3	3205	A2	4201	B2		
2185	B3	3206	A2	4210	A2		
2200	A2	3207	A2	4220	B2		
2211	A2	3208	A2	4241	B3		
2212	A2	3209	A2	4260	A2		
2220	B3	3210	A2	4261	A2		
2250	B3	3211	A2	4402	B2		
2251	B3	3212	A2	4403	B2		
2252	B3	3213	A2	4404	B2		
2260	A2	3214	A2	4405	B2		
2261	A2	3215	A2	4450	B2		
2262	A2	3216	A2	4451	B2		
2263	A2	3217	A2	5161	A2		
2264	A2	3218	A2	6120	A2		
2265	A2	3219	A2	6250	B3		
2266	A2	3220	B3	6311	B1		
2310	B1	3221	B3	6312	B1		
2311	B1	3222	B3	6350	A2		
2313	B1	3223	B3	7110	B3		
2316	B1	3230	A2	7120	A3		
2334	A1	3231	A2	7140	B3		
2336	A1	3232	A2	7141	A3		
2340	B2	3233	A2	7142	B3		
2341	B2	3250	B3	7143	B3		
2350	A1	3251	B3	7200	A2		
2351	A1	3252	B3	7201	A2		
2352	A1	3308	B1	7202	A2		
2353	B2	3309	B2	7210	A2		
2354	B1	3310	B1	7211	A2		
2360	B1	3311	B1	7212	A2		
2400	B2	3312	B1	7220	B3		
2401	B2	3313	B1	7310	B1		
2402	B2	3317	B2	7311	B1		
2403	B2	3318	B1	7312	B1		
2404	B2	3319	B1	7313	B1		
2421	B2	3320	B1	7330	A1		
3100	A3	3333	A1	7350	A2		

DVD Eject Panel


1
2
A
B
M 5 DVD EJECT EURO
TO 0264 OF DVD COMBI
M 4
0267
1
2
3
1110
SKQNAB
CL 26532066_006.eps
280602

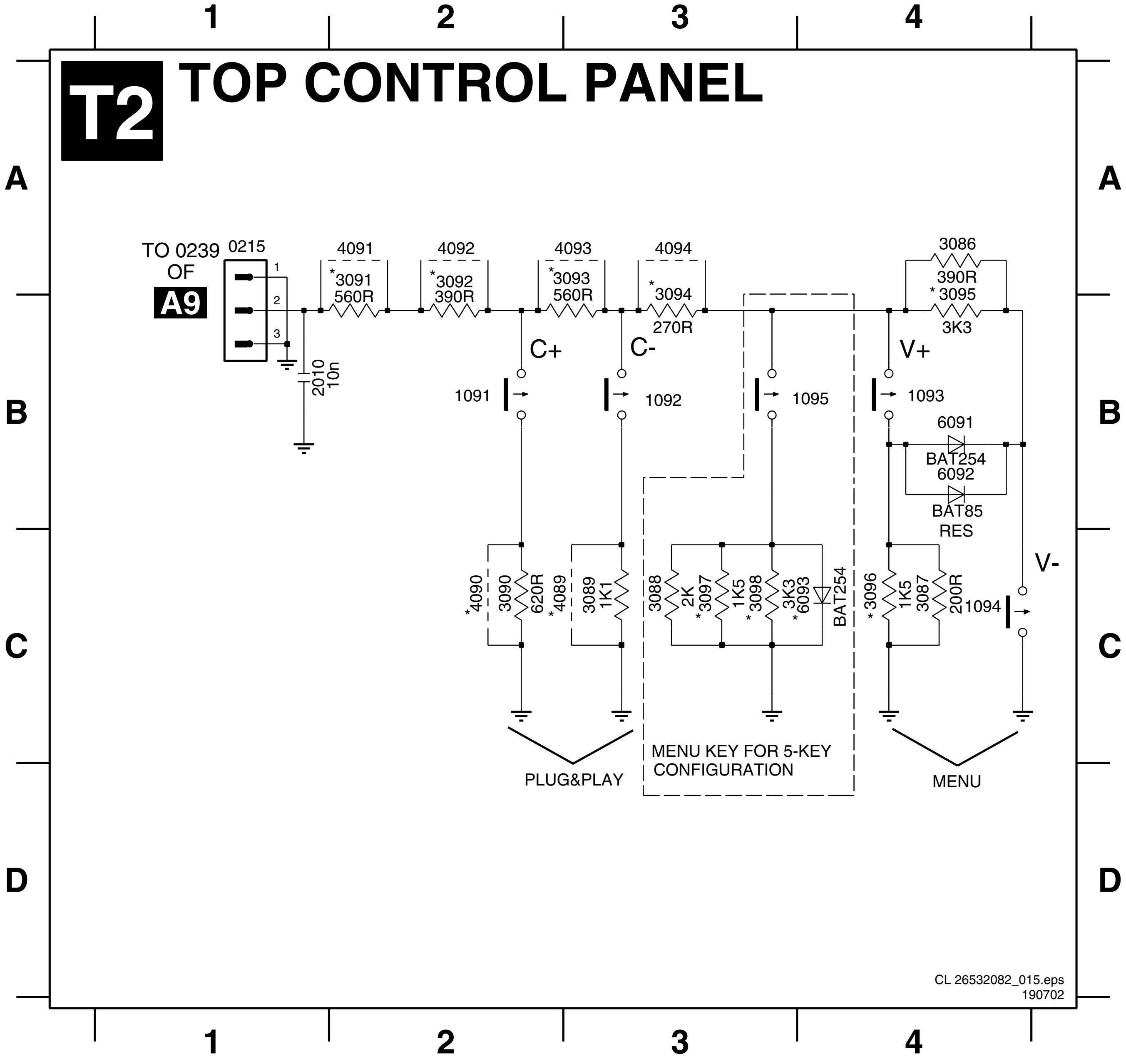
Layout DVD Eject Panel


1
2
3
A
3
1
0267
1110
CL 26532066_022.eps
020802

Personal Notes:

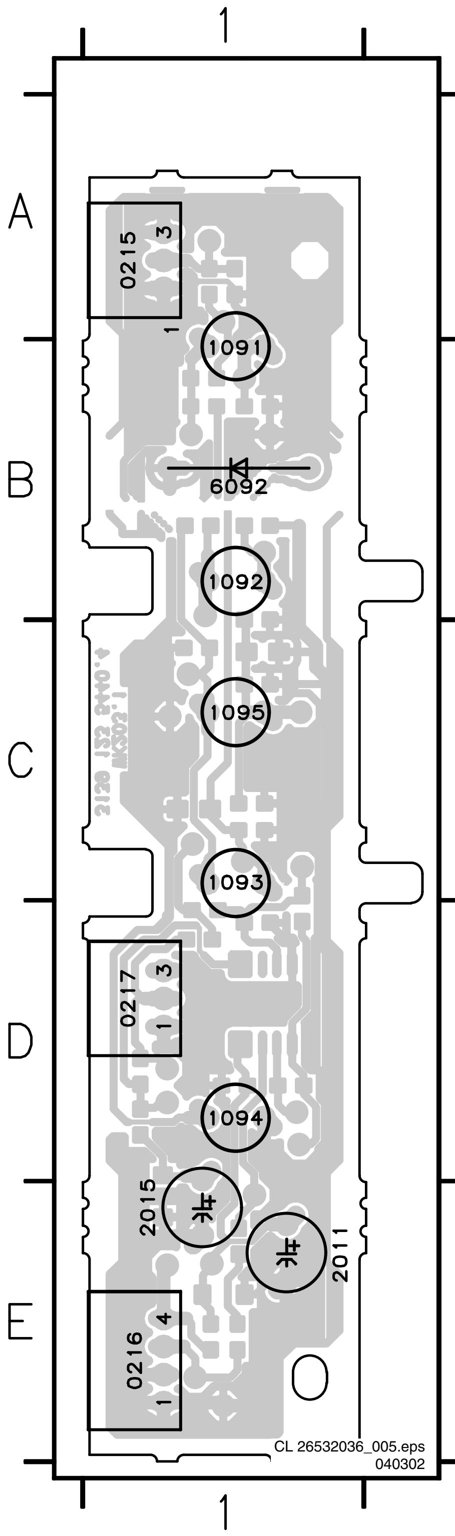
Top Contol Panel

0215 A1	1093 B4	2010 B1	3088 C3	3091 A2	3094 B3	3097 C3	4090 C2	4093 A3	6092 B4
1091 B2	1094 C4	3086 A4	3089 C3	3092 A2	3095 B4	3098 C3	4091 A2	4094 A3	6093 C4
1092 B3	1095 B4	3087 C4	3090 C2	3093 A3	3096 C4	4089 C3	4092 A2	6091 B4	



T2
TOP CONTROL PANEL
1
2
3
4
A
B
C
D
TO 0239 OF
A9
0215
1
2
3
2010 10n
4091
*3091 560R
4092
*3092 390R
4093
*3093 560R
4094
*3094 270R
3086 390R
*3095 3K3
C+
C-
V+
V-
1091
1092
1095
1093
1094
6091 BAT254
6092 BAT85
RES
*4090
3090 620R
*4089
3089 1K1
3088 2K
*3097 1K5
*3098 3K3
*6093 BAT254
*3096 1K5
3087 200R
PLUG&PLAY
MENU KEY FOR 5-KEY CONFIGURATION
MENU
CL 26532082_015.eps 190702

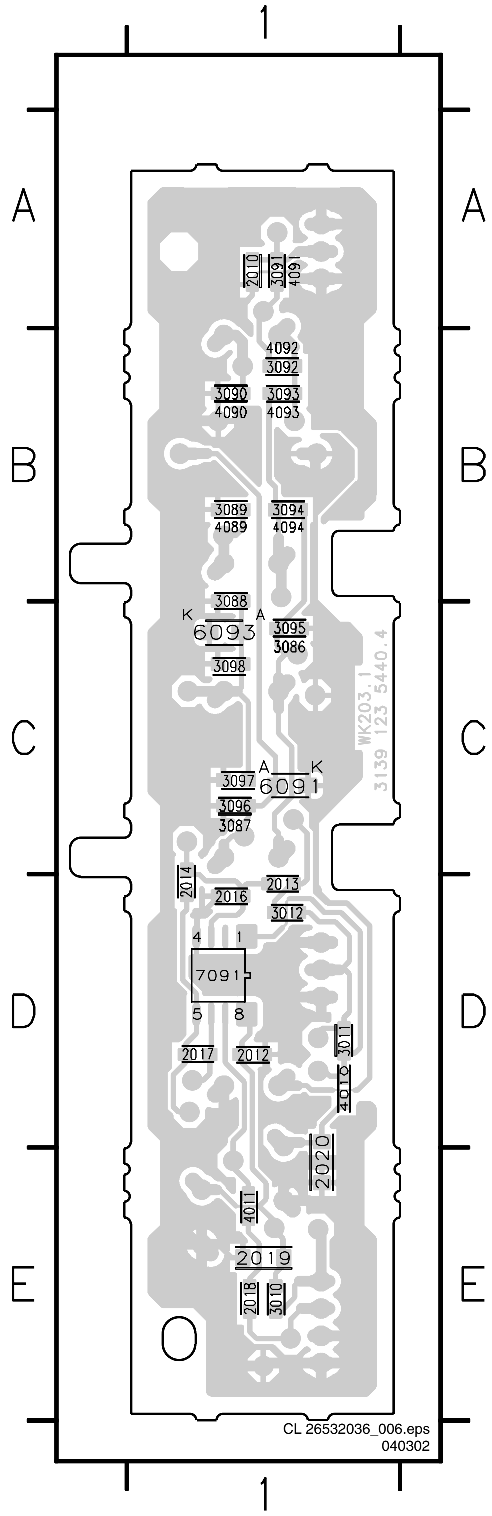
Layout Top Control (Top View)



1
A
B
C
D
E
0215
0216
0217
1091
1092
1093
1094
1095
6092
2015
2011
CL 26532036_005.eps 040302

0215	A1
0216	E1
0217	D1
1091	B1
1092	B1
1093	C1
1094	D1
1095	C1
2011	E1
2015	E1
6092	B1

Layout Top Control (Bottom View)



1
A
B
C
D
E
2010
3091
4091
4092
3092
3090
4090
3093
4093
3089
4089
3094
4094
3088
6093
3095
3086
3098
3097
6091
3096
3087
2014
2016
2013
3012
7091
2017
2012
3011
4010
2020
4011
2019
2018
3010
3139 123 5440.4
WK203.1
CL 26532036_006.eps 040302

2010	A1
2012	D1
2013	D1
2014	D1
2016	D1
2017	D1
2018	E1
2019	E1
2020	E1
3010	E1
3011	D1
3012	D1
3086	C1
3087	C1
3088	B1
3089	B1
3090	B1
3091	A1
3092	B1
3093	B1
3094	B1
3095	C1
3096	C1
3097	C1
3098	C1
4010	D1
4011	E1
4089	B1
4090	B1
4091	A1
4092	B1
4093	B1
4094	B1
6091	C1
6093	C1
7091	D1

Personal Notes:

Personal Notes:

8. Alignments

Index of this chapter:

1. General Alignment Conditions
2. Hardware Alignments
3. Software Alignments and Settings

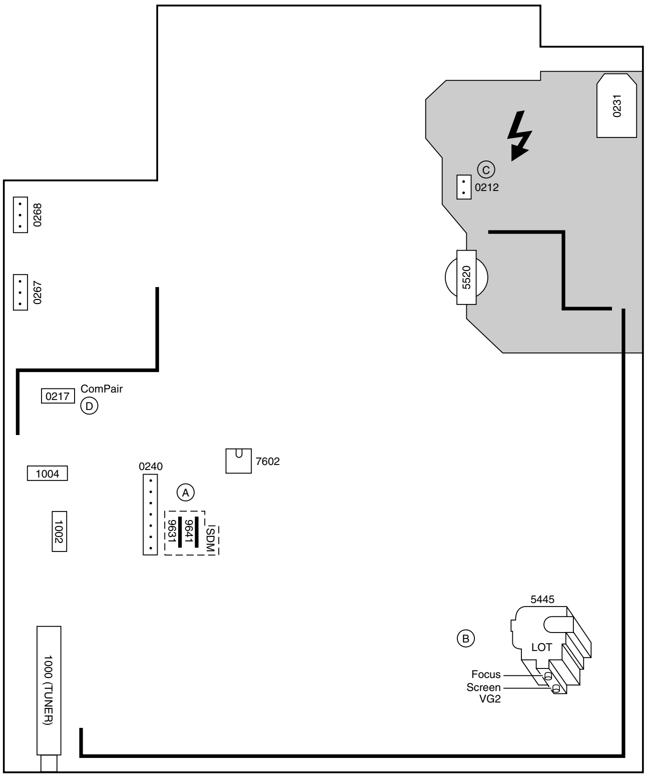
Note: The Service Default Alignment Mode (SDAM) was described in chapter 5. Menu navigation is done with the 'CURSOR UP, DOWN, LEFT or RIGHT' keys of the remote control transmitter.

8.1 General Alignment Conditions

Perform all electrical adjustments under the following conditions:

- Mains voltage and frequency: 230 V (± 10 %), 50 Hz (± 5 %).
- Connect the set to the Mains voltage via an isolation transformer.
- Allow the set to warm up for approximately 20 minutes.
- Measure the voltages and waveforms in relation to chassis ground (with the exception of the voltages on the primary side of the power supply). Never use the cooling fins / plates as ground.
- Test probe: Ri > 10 MOhm; Ci < 2.5 pF.
- Use an isolated trimmer / screwdriver to perform the alignments.

8.2 Hardware Alignments



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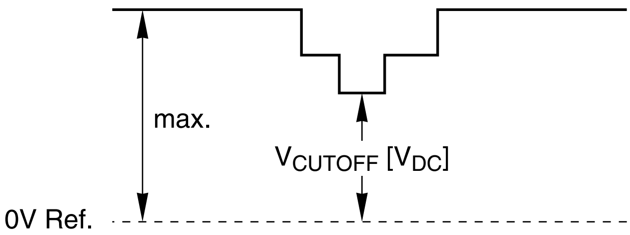
010802

Figure 8-1 Top view monocarrier

8.2.1 Vg2 Adjustment

1. Activate the SDAM.
2. Go to the WHITE TONE sub menu.
3. Set the values of NORMAL RED, GREEN and BLUE to 40.
4. Go, via the MENU key, to the normal user menu and set
5. CONTRAST to zero.
6. BRIGHTNESS to minimum (OSD just visible in a dark room).
7. Return to the SDAM via the MENU key.
8. Connect the RF output of a pattern generator to the antenna input. Test pattern is a 'black' picture (blank screen on CRT without any OSD info).
9. Set the channel of the oscilloscope to 50 V/div and the time base to 0.2 ms (external triggering on the vertical pulse).
10. Ground the scope at the CRT panel and connect a 10:1 probe to one of the cathodes of the picture tube socket (see diagram B).
11. Measure the cut off pulse during first full line after the frame blanking (see figure 8-2). You will see two pulses, one being the cut off pulse and the other being the white drive pulse. Choose the one with the lowest value; this is the cut off pulse.
12. Select the cathode with the highest Vdc value for the alignment. Adjust the Vcutoff of this gun with the SCREEN potentiometer (see figure 8-1) on the LOT, to the correct value (see table below).
13. Restore BRIGHTNESS and CONTRAST to normal (= 31).



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131000

Figure 8-2 Vg2 waveform

Table 8-1 Cut-off voltage

Screen Size	Cut-off Voltage
21RF Philips, 24WSRF EU	+160V +/- 4V

8.2.2 Focus alignment

- Tune the set to a circle or crosshatch test pattern (use an external video pattern generator).
- Choose picture mode NATURAL (or MOVIES) with the 'SMART PICTURE' button on the remote control transmitter.
- Adjust the FOCUS potentiometer (see Fig. 8-1) until the vertical lines at 2/3 from east and west, at the height of the centreline, are of minimum width without visible haze.

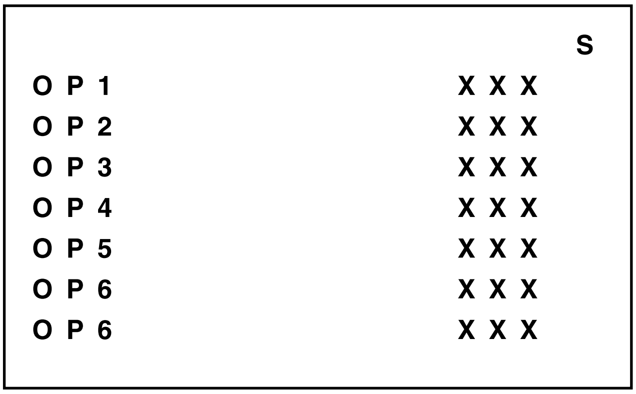
8.3 Software Alignments and Settings

Enter the Service Default Alignment Mode (see chapter 5). The SDAM menu will now appear on the screen.
Select one of the following alignments:

1. Options
2. Tuner
3. White tone
4. Geometry
5. Audio

8.3.1 Options

Options are used to control the presence / absence of certain features and hardware.



```
                                  S
OP1                    XXX
OP2                    XXX
OP3                    XXX
OP4                    XXX
OP5                    XXX
OP6                    XXX
OP6                    XXX
```

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Figure 8-3 Option menu

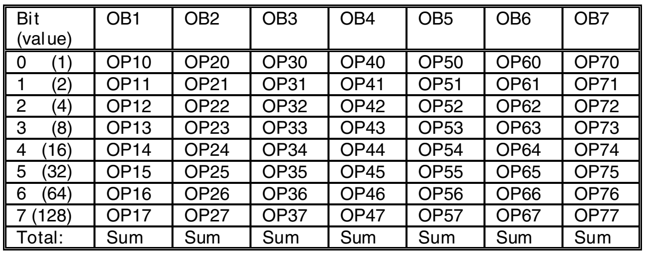
How to change an Option Byte

An Option Byte represents a number of different options. Changing these bytes directly makes it possible to set all options very fast. All options are controlled via seven option bytes. Select the option byte (OP1.. OP7) with the MENU UP/ DOWN keys, and enter the new value.

Leaving the OPTION submenu saves changes in the Option Byte settings. Some changes will only take effect after the set has been switched OFF and ON with the mains switch (cold start).

How to calculate the value of an Option Byte

Calculate an Option Byte value (OB1 .. OB7) in the following way:
Check the status of the single option bits (OP): are they enabled (1) or disabled (0).
When an option bit is enabled (1) it represents a certain value (see column 'Dec. value' in table below). When an option bit is disabled, its value is 0.
The total value of an Option Byte is formed by the sum of its eight option bits.



Bit (value)	OB1	OB2	OB3	OB4	OB5	OB6	OB7
0 (1)	OP10	OP20	OP30	OP40	OP50	OP60	OP70
1 (2)	OP11	OP21	OP31	OP41	OP51	OP61	OP71
2 (4)	OP12	OP22	OP32	OP42	OP52	OP62	OP72
3 (8)	OP13	OP23	OP33	OP43	OP53	OP63	OP73
4 (16)	OP14	OP24	OP34	OP44	OP54	OP64	OP74
5 (32)	OP15	OP25	OP35	OP45	OP55	OP65	OP75
6 (64)	OP16	OP26	OP36	OP46	OP56	OP66	OP76
7 (128)	OP17	OP27	OP37	OP47	OP57	OP67	OP77
Total:	Sum	Sum	Sum	Sum	Sum	Sum	Sum

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Figure 8-4 Option byte structure

Table 8-2 Option code setting

Typenumber	OP1	OP2	OP3	OP4	OP5	OP6	OP7
21PT6807/01 DVD	216	247	249	184	208	54	3
21PT6807/05 DVD	220	247	249	184	208	54	3
21PT6807/58 DVD	216	247	249	184	208	54	0
24PW6817/01 DVD	216	247	253	184	208	54	3
24PW6817/05 DVD	220	247	253	184	208	54	3

Option Bit Assignment

Following are the option bit assignments for all L01 software clusters.

- Option Byte 1 (OB1)
  - OP10: CHINA
  - OP11: VIRGIN_MODE
  - OP12: UK_PNP
  - OP13: ACI
  - OP14: ATS
  - OP15: LNA
  - OP16: FM_RADIO
  - OP17: PHILIPS_TUNER
- Option Byte 2 (OB2)
  - OP20: HUE
  - OP21: COLOR_TEMP
  - OP22: CONTRAST_PLUS
  - OP23: TILT
  - OP24: NOISE_REDUCTION
  - OP25: CHANNEL_NAMING
  - OP26: SMART_PICTURE
  - OP27: SMART_SOUND
- Option Byte 3 (OB3)
  - OP30: AVL
  - OP31: WSSB
  - OP32: WIDE_SCREEN
  - OP33: VIRTUAL DOLBY
  - OP34: MSP34X5_VOL_CTRL
  - OP35: COMPRESS_16_9
  - OP36: EXPAND_4_3
  - OP37: EW_FUNCTION
- Option Byte 4 (OB4)
  - OP40: STEREO_NON_DBX
  - OP41: STEREO_DBX
  - OP42: STEREO_PB
  - OP43: STEREO_NICAM_2CS
  - OP44: DELTA_VOLUME
  - OP45: ULTRA_BASS
  - OP46: VOLUME_LIMITER
  - OP47: INCR_SUR
- Option Byte 5 (OB5)
  - OP50: PIP
  - OP51: HOTEL_MODE
  - OP52: SVHS
  - OP53: CVI
  - OP54: AV3
  - OP55: AV2
  - OP56: AV1
  - OP57: NTSC_PLAYBACK
- Option Byte 6 (OB6)
  - OP60: BASS_TREBLE, SW1Txt for EU
  - OP61: SMART_TEXT
  - OP62: SMART_LOCK
  - OP63: VCHIP
  - OP64: WAKEUP_CLOCK
  - OP65: SMART_CLOCK
  - OP66: SMART_SURF
  - OP67: PERSONAL_ZAPPING
- Option Byte 7 (OB7)
  - OP70: SOUND_SYSTEM_AP_3 / MULTI_STANDARD_EUR / SYSTEM_LT_2
  - OP71: SOUND_SYSTEM_AP_2 / WEST_EU / SYSTEM_LT_1
  - OP72: SOUND_SYSTEM_AP_1
  - OP73: COLOR_SYSTEM_AP
  - OP74: SIGNAL_STRENGTH / DVD WAKEUP TIMER
  - OP75: LNA_PP (for L01 AP cluster), VOICE_CONTROL
  - OP76: ACTIVE_CONTROL
  - OP77: TIME_WIN1

Option bit definition

OP10: CHINA

0: Tuning is not for China set, or this option bit is not applicable,
1: Tuning is for China set,
Default setting: 0.

OP11: VIRGIN_MODE
0: Virgin mode is disabled or not applicable,
1: Virgin mode is enabled. Plug and Play menu item will be displayed to perform installation at the initial start-up of the TV when VIRGIN_MODE is set to 1. After installation is finished, this option bit will be automatically set to 0,
Default setting: 0.

OP12: UK_PNP
0: UK's default Plug and Play setting is not available or not applicable,
1: UK's default Plug and Play setting is available. When UK_PNP and VIRGIN_MODE are set to 1 at the initial set-up, LANGUAGE = ENGLISH, COUNTRY = GREAT BRITAIN and after exiting from menu, VIRGIN_MODE will be set automatically to 0 while UK_PNP remains 1,
Default setting: 0.

OP13: ACI
0: ACI feature is disabled or not applicable,
1: ACI feature is enabled,
Default setting: 0.

OP14: ATS
0: ATS feature is disabled or not applicable,
1: ATS feature is enabled. When ATS is enabled, it sorts the program in an ascending order starting from program 1,
Default setting: 0.

OP15: LNA
0: Auto Picture Booster is not available or not applicable,
1: Auto Picture Booster is available,
Default setting: 0.

OP16: FM_RADIO
0: FM radio feature is disabled or not applicable,
1: FM radio feature is enabled,
Default setting: 0.

OP17: PHILIPS_TUNER
0: ALPS / MASCO compatible tuner is in use,
1: Philips compatible tuner is in use,
Default setting: 0.

OP20: HUE
0: Hue/Tint Level is disabled or not applicable,
1: Hue/Tint Level is enabled,
Default setting: 0.

OP21: COLOR_TEMP
0: Colour Temperature is disabled or not applicable,
1: Colour Temperature is enabled,
Default setting: 0.

OP22: CONTRAST_PLUS
0: Contrast+ is disabled or not applicable,
1: Contrast+ is enabled,
Default setting: 0.

OP23: TILT
0: Rotate Picture is disabled or not applicable,
1: Rotate Picture is enabled,
Default setting: 0.

OP24: NOISE_REDUCTION
0: Noise Reduction (NR) is disabled or not applicable,
1: Noise Reduction (NR) is enabled,
Default setting: 0.

OP25: CHANNEL_NAMING
0: Name FM Channel is disabled or not applicable,
1: Name FM Channel is enabled,
Default setting: 0.
Note: Name FM channel can be enabled only when FM_RADIO = 1.

OP26: SMART_PICTURE
0: Smart Picture is disabled or not applicable,
1: Smart Picture is enabled,
Default setting: 1

OP27: SMART_SOUND
0: Smart Sound is disabled or not applicable,
1: Smart Sound is enabled,
Default setting: 1

OP30: AVL
0: AVL is disabled or not applicable,
1: AVL is enabled,
Default setting: 0.

OP31: WSSB
0: WSSB is disabled or not applicable,
1: WSSB is enabled,
Default setting: 0.
Note: This option bit can be set to 1 only when WIDE_SCREEN = 1.

OP32: WIDE_SCREEN
0: Software is used for 4:3 set or not applicable,
1: Software is used for 16:9 set,
Default setting: 0.

OP33: VIRTUAL DOLBY
Default setting: 1.

OP34: MSP34X5_VOL_CTRL
Default setting: 0.
Note For 2x10W sets only

OP35: COMPRESS_16_9
0: COMPRESS 16:9 selection is not applicable. Item should not be in the FORMAT menu list,
1: COMPRESS 16:9 selection is applicable. Item should not be in the FORMAT menu list,
Default setting: 0.

OP36: EXPAND_4_3
0: Expand 4:3 selection is not applicable. Item should not be in the FORMAT menu list,
1: Expand 4:3 selection is applicable. Item should be in the FORMAT menu list,
Default setting: 0.

OP37: EW_FUNCTION
0: EW function is disabled. In this case, only Expand 4:3 is allowed, Compress 16:9 is not applicable.
1: EW function is enabled. In this case, both Expand 4:3 and Compress 16:9 are applicable.
Default setting: 0.

OP40: STEREO_NON_DBX
0: For AP_NTSC, chip TDA 9853 is not present,
1: For AP_NTSC, chip TDA 9853 is present,
Default setting: 0.

OP41: STEREO_DBX
0: For AP_NTSC, chip MSP 3445 is not present,
1: For AP_NTSC, chip MSP 3445 is present,
Default setting: 0.

OP42: STEREO_PB
0: For AP_PAL, chip MSP3465 is not present,
1: For AP_PAL, chip MSP3465 is present,
Default setting: 0.

OP43: STEREO_NICAM_2CS
0: For EU and AP_PAL, chip MSP 3415 is not present,
1: For EU and AP_PAL, chip MSP 3415 is present,
Default setting: 0.

OP44: DELTA_VOLUME
0: Delta Volume Level is disabled or not applicable,
1: Delta Volume Level is enabled,
Default setting: 0.

OP45: ULTRA_BASS
0: Ultra Bass is disabled or not applicable,
1: Ultra Bass is enabled,
Default setting: 0.

OP46: VOLUME_LIMITER
0: Volume Limiter Level is disabled or not applicable,
1: Volume Limiter Level is enabled,
Default setting: 0.

OP47: INCR_SUR
0: Incredible Surround feature is disabled,
1: Incredible Surround feature is enabled,
Default setting: 1

OP50: PIP
0: PIP is disabled or not applicable,
1: PIP is enabled,
Default setting: 0.

OP51: HOTEL_MODE
0: Hotel mode is disabled or not applicable,
1: Hotel mode is enabled,
Default setting: 0.

OP52: SVHS
0: SVHS source is not available,
1: SVHS source is available,
Default setting: 0.
Note: This option bit is not applicable for EU.

OP53: CVI
0: CVI source is not available,
1: CVI source is available,
Default setting: 0.

OP54: AV3
0: Side/Front AV3 source is not present,
1: Side/Front AV3 source is present,
Default setting: 0.

OP55: AV2
0: AV2 source is not present,
1: AV2 source is present,
Default setting: 0.
Note: For EU, when AV2=1, both EXT2 and SVHS2 should be included in the OSD loop.

OP56: AV1
0: AV1 source is not present,
1: AV1 source is present,
Default setting: 0.

OP57: NTSC_PLAYBACK
0: NTSC playback feature is not available,
1: NTSC playback feature is available,
Default setting: 0.

OP60: BASS_TREBLE, SW1Txt for EU
Default setting: 0.

OP61: SMART_TEXT
0: Smart Text Mode and Favourite Page are disabled or not applicable,
1: Smart Text Mode and Favourite Page are enabled,
Default setting: 1.

OP62: SMART_LOCK
0: Child Lock and Lock Channel are disabled or not applicable for EU,
1: Child Lock and Lock Channel are enabled for EU,
Default setting: 1.

OP63: VCHIP
0: VCHIP feature is disabled,
1: VCHIP feature is enabled,
Default setting: 1.

OP64: WAKEUP_CLOCK
0: Wake up clock feature is disabled or not applicable,
1: Wake up clock feature is enabled,
Default setting: 1.

OP65: SMART_CLOCK
0: Smart Clock Using Teletext and Smart Clock Using PBS is disabled or not applicable,
1: Smart Clock Using Teletext and Smart Clock Using PBS is enabled. For NAFTA, menu item AUTOCHRON is present in the INSTALL submenu,
Default setting: 0.

OP66: SMART_SURF
0: Smart Surf feature is disabled or not applicable,
1: Smart Surf feature is enabled,
Default setting: 0.

OP67: PERSONAL_ZAPPING
0: Personal Zapping feature is disabled or not applicable,
1: Personal Zapping feature is enabled,
Default setting: 0.

OP70: MULTI_STANDARD_EUR
0: Not for Europe multi standard set, or this option bit is not applicable,
1: For Europe multi standard set.
Default setting: 0.
Note: This option bit is used to control the SYSTEM selection in Manual Store: If MULTI_STANDARD_EUR = 1 then SYSTEM = Europe, West Europe, East Europe, UK, France. Otherwise SYSTEM = 'Europe, West Europe, UK for West Europe' (WEST_EU=1) or SYSTEM = 'Europe, West Europe, East Europe for East Europe' (WEST_EU=0)

OP71: WEST_EU
0: For East Europe set, or this option bit is not applicable,
1: For West Europe set,
Default setting: 0.

OP71 and 70: SYSTEM_LT_1, SYSTEM_LT_2
These two option bits are allocated for LATAM system selection.
00: NTSC-M
01: NTSC-M, PAL-M
10: NTSC-M, PAL-M, and PAL-N
11: NTSC-M, PAL-M, PAL-N, and PAL-BG
Default setting: 00

OP70, 71 and 72: SOUND_SYSTEM_AP_1, SOUND_SYSTEM_AP_2, SOUND_SYSTEM_AP_3
These three option bits are allocated for AP_PAL sound system selection.
000: BG
001: BG / DK
010: I / DK
011: BG / I / DK
100: BG / I / DK / M
Default setting: 00

OP73: COLOR_SYSTEM_AP
This option bit is allocated for AP-PAL colour system selection.
0: Auto, PAL 4.43, NTSC 4.43, and NTSC 3.58
1: Auto, PAL 4.43, NTSC 4.43, NTSC 3.58, and SECAM
Default setting: 0

OP74: SIGNAL_STRENGTH / DVD WAKEUP TIMER
Default setting: 0.

OP75: LNA_PP (for L01 AP cluster), VOICE_CONTROL
Default setting: 0.

OP76: ACTIVE_CONTROL
Default setting: 0.

OP77: TIME_WIN1
00: The time window is set to 1.2 s
01: The time window is set to 2 s
10: The time window is set to 5 s
11: not in use
Default setting: 01
Note: The time-out for all digit entries depends on this setting.

8.3.2 Tuner

Note: Described alignments are only necessary when the NVM (item 7602) is replaced.

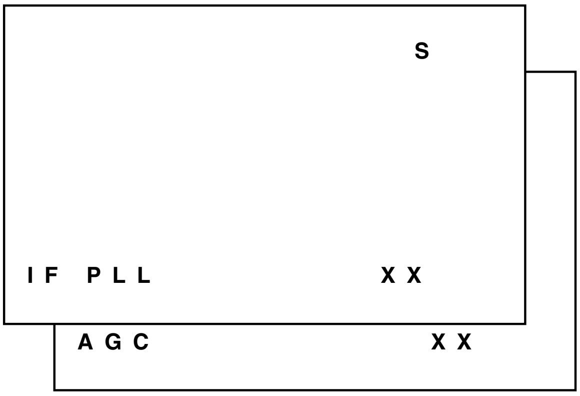

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Figure 8-5 Tuner alignment menu

IF PLL
This adjustment is auto-aligned. Therefore, no action is required.

AGC (AGC take over point)
Set the external pattern generator to a colour bar video signal and connect the RF output to aerial input. Set amplitude to 10 mV and set frequency to 475.25 MHz (PAL/SECAM).

1. Connect a DC multimeter to pin 1 of the tuner (item 1000 on the main chassis).
2. Activate the SDAM.
3. Go to the TUNER sub menu.
4. Select AGC with the UP/DOWN cursor keys.
5. Adjust the AGC-value (default value is 28) with the LEFT/RIGHT cursor keys until the voltage at pin 1 of the tuner lies between 3.8 and 2.3 V.
6. Return to the SDAM via the MENU key and Switch the set to STANDBY.

8.3.3 White Tone

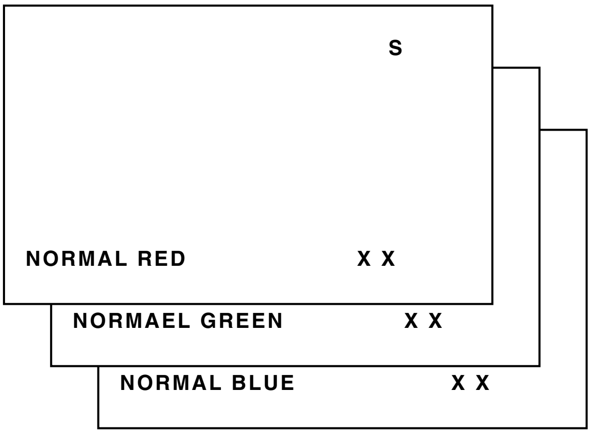

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Figure 8-6 White tone alignment menu

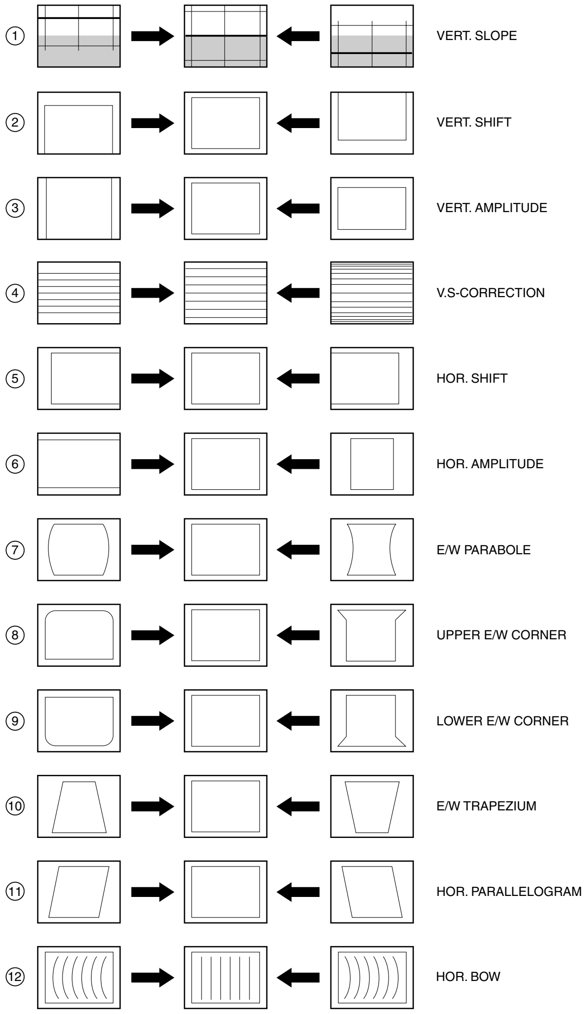
In the WHITE TONE sub menu, the values of the black cut off level can be adjusted. Normally, no alignment is needed for the WHITE TONE. You can use the given default values.
The colour temperature NORMAL RED, NORMAL GREEN and NORMAL BLUE can be selected with the UP/DOWN RIGHT/LEFT cursor keys. The value can be changed with the LEFT/RIGHT cursor keys.
Note: After alignment, switch the set to standby, in order to store the alignments value.

Default settings:
NORMAL (colour temperature = 9600 K):

- NORMAL R = 40
- NORMAL G = 40
- NORMAL B = 40

8.3.4 Geometry

The geometry alignments menu contains several items to align the set, in order to obtain correct picture geometry.


①
VERT. SLOPE
②
VERT. SHIFT
③
VERT. AMPLITUDE
④
V.S-CORRECTION
⑤
HOR. SHIFT
⑥
HOR. AMPLITUDE
⑦
E/W PARABOLE
⑧
UPPER E/W CORNER
⑨
LOWER E/W CORNER
⑩
E/W TRAPEZIUM
⑪
HOR. PARALLELOGRAM
⑫
HOR. BOW

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140501

Figure 8-7 Geometry alignments

How to align:

Connect an external video pattern generator to the aerial input of the TV-set and input a crosshatch test pattern. Set the generator amplitude to at least 1 mV and set frequency to 475.25 MHz (PAL/SECAM).

1. Set 'Smart Picture' to NATURAL (or MOVIES).
2. Activate the SDAM menu (see chapter 5).
3. Go to the GEOMETRY sub menu.
4. Choose HORIZONTAL or VERTICAL alignment

Now the following alignments can be performed:

Horizontal alignment:

- **Horizontal Parallelogram (HP).** Align straight vertical lines in the top and the bottom; vertical rotation around the centre.
- **Horizontal Bow (HB).** Align straight horizontal lines in the top and the bottom; horizontal rotation around the centre.
- **Horizontal Shift (HSH).** Align the horizontal centre of the picture to the horizontal centre of the CRT.
- **East West Width (EWW).** Align the picture width until the complete test pattern is visible.
- **East West Parabola (EWP).** Align straight vertical lines at the sides of the screen.
- **Upper Corner Parabola (UCP).** Align straight vertical lines in the upper corners of the screen.
- **Lower Corner Parabola (LCP).** Align straight vertical lines in the lower corners of the screen.
- **East West Trapezium (EWT).** Align straight vertical lines in the middle of the screen.

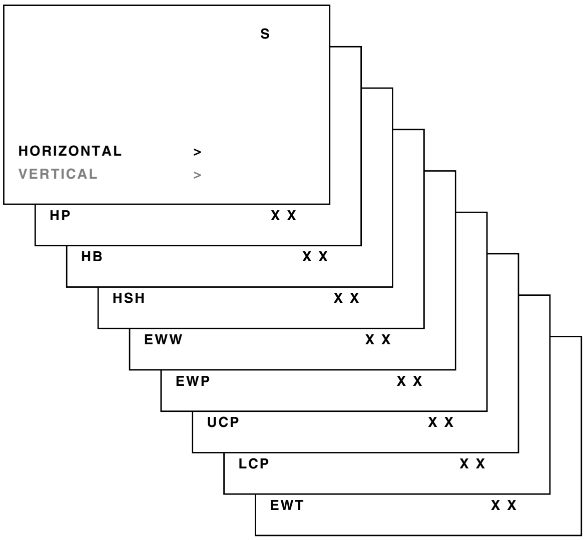
S
HORIZONTAL >
VERTICAL >
HP XX
HB XX
HSH XX
EWW XX
EWP XX
UCP XX
LCP XX
EWT XX

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Figure 8-8 Horizontal alignment menu

Vertical alignment:

- **Vertical slope (VSL).** Align the vertical centre of the picture to the vertical centre of the CRT. This is the first of the vertical alignments to perform. For an easy alignment, set SBL to ON.
- **Vertical Amplitude (VAM).** Align the vertical amplitude so that the complete test pattern is visible.
- **Vertical S-Correction (VSC).** Align the vertical linearity, meaning that vertical intervals of a grid pattern must be equal over the entire screen height.
- **Vertical Shift (VSH).** Align the vertical centring so that the test pattern is located vertically in the middle. Repeat the 'vertical amplitude' alignment if necessary.
- **Service blanking (SBL).** Switch the blanking of the lower half of the screen ON or OFF (to be used in combination with the vertical slope alignment).
- **60 Hz Horizontal Shift (H60).** Align straight horizontal lines if NTSC input (60 Hz) is used i.s.o. PAL (50 Hz) or so called Horizontal Shift Offset (NTSC)
- **60 Hz Vertical amplitude (V60).** Align straight vertical lines if NTSC input (60 Hz) is used i.s.o. PAL (50 Hz) or so called Vertical Shift Offset (NTSC)

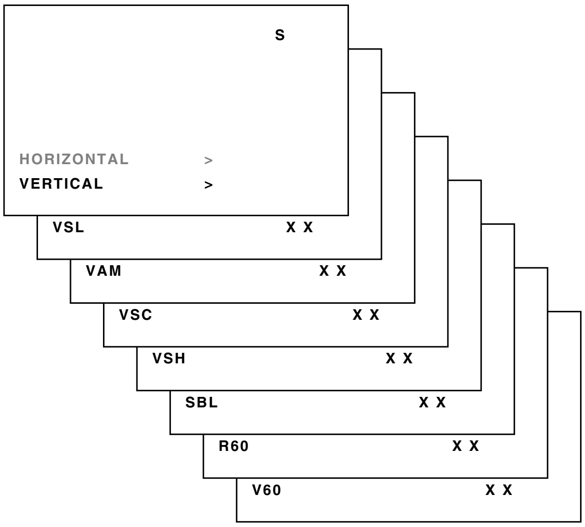
S
HORIZONTAL >
VERTICAL >
VSL XX
VAM XX
VSC XX
VSH XX
SBL XX
R60 XX
V60 XX

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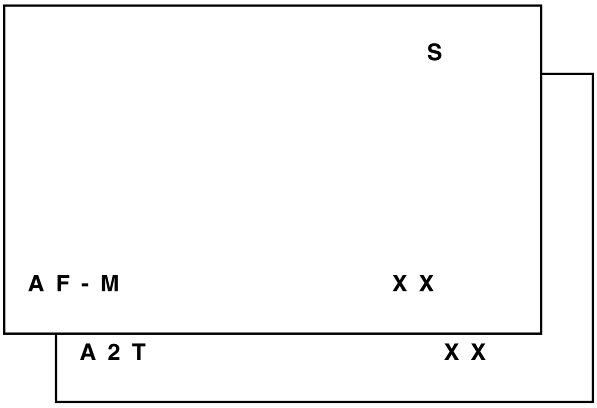
Figure 8-9 Vertical alignment menu

In the table below, you will find the GEOMETRY default values for the different sets.

Table 8-3 Default geometry values

Alignment	**Description**	**21PT6807/01 DVD**	**21PT6807/05 DVD**	**21PT6807/58 DVD**	**24PW6817/01 DVD**	**24PW6817/05 DVD**
HP	Hor. Parallelogram	31	31	31	32	32
HB	Hor. Bow	31	31	31	32	32
HSH	Hor. S hift	38	38	38	27	27
EWW	East West Width	40	40	40	36	36
EWP	East West Parabola	06	06	06	20	20
UCP	Upper Corner Parabola	35	35	35	20	20
LCP	Lower Corner Parabola	35	35	35	25	25
EWT	East West Trapezium	35	35	35	28	28
VSL	Vert. Slope	36	36	36	37	37
VAM	Vert. Amplitude	63	63	63	30	30
VSC	Vert. S -correction	23	23	23	20	20
VSH	Vert. S hift	31	31	31	31	31
VX	Vert. Zoom	25	25	25	25	25
H60	60 Hz Horizontal Shift	09	09	09	09	09
V60	60 Hz Vertical amplitude	64	64	64	64	64

8.3.5 Audio



CL 26532066_017.eps
010802

Figure 8-10 Audio alignment menu

There are no alignments necessary for the audio sub menu. Use the given default values.

AF-M
Default value is 300

A2T
TV A2 Threshold
Default value is 25

9. Circuit Description

For circuit description of the TV-set see service manual L01.1E AB (3122 785 12860).
For circuit description of the DVD Module see service manual DVD Module SD-3 (3122 785 11010).

9.1 List Of Abbreviations

AC3	Digital Audio Compression standard
CDDA	Compact Disc Digital Audio
CSM	Customer Service Mode
DTS	Digital Theater Systems
DVD	Digital Versatile Disc
LPCM	Linear Pulse Code Modulation
LSP	Large Signal Panel
MPEG	Moving Picture Experts Group
OSD	On Screen Display
SAM	Service Alignment Mode
SDM	Service Default Mode

10. Spare Parts List

Large Signal Panel [A] + CRT [B]

Various

0127	4822 265 11253	Fuse holder
0129	3139 120 10151	NTC holder
0136	4822 492 70788	Fix IC
0137	4822 492 70289	Spring
0138	4822 492 70788	Fix IC
0139	4822 492 62076	Spring for transistor
0140	4822 492 70289	Spring
0141	4822 492 70788	Fix IC
0152	3104 301 09421	Cable 6p 400mm
0159	3104 311 02931	Cable 3p 400mm
0169	3104 311 04931	Cable 4p 480mm
0172	3104 311 01311	Cable 3p 340mm
0173	3104 311 03901	Cable 3p 340mm
0180	3104 311 04941	Cable 6p 560mm
0181	3104 311 01141	Cable 7p 340mm
0186	3104 301 08422	Cable 5p 480mm
0195	3104 311 04951	Cable 3p 220mm
0211	2422 025 16374	2p male
0212	4822 267 10774	2p male (red)
0214	4822 267 10734	5p
0217	4822 267 10735	3p
0219	2422 025 15849	6p female
0220	4822 265 30735	5p
0221	4822 267 10966	2p
0222	2422 025 10646	2p male
0227	2422 025 16382	3p male
0229	4822 267 10735	3p
0235	4822 267 60385	21p
0239	2422 025 16382	3p male
0240	2422 025 11244	7p female
0243	2422 025 04854	6p female
0244	4822 265 30735	5p
0245	2422 025 04854	6p female
0246	4822 267 10734	5p
0251	4822 267 10565	4p
0254	2422 500 80076	CRT socket 9P female
0265	4822 267 10748	3p
0267	2422 025 16382	3p male
0278	4822 267 10735	3p
1000	3139 147 17401	Tuner UR1316R/A I -3
1002	4822 242 81436	OFWK3953M
1004	2422 549 44341	Saw filter 38.9MHz OFWK9656M
1200	4822 242 81712	TPWA04B
1500	2422 086 10914	Fuse 4A 250V
1515	2422 132 07467	Relay 12V 5A
1660	2422 543 01203	Crystal 12.000MHz
1831	4822 242 10769	Crystal 18.432 000 MHz

⊣⊢

2001	5322 122 32658	22pF 5% 50V
2002	5322 122 32658	22pF 5% 50V
2003	4822 122 33177	10nF 20% 50V
2004	4822 126 13751	47nF 10% 63V
2005	4822 124 40248	10µF 20% 63V
2006	4822 124 80791	470µF 16V 20%
2007	4822 126 14585	100nF 10% 50V
2008	4822 124 40207	100µF 20% 25V
2009	5322 122 32654	22nF 10% 63V
2010	5322 126 10511	1nF 5% 50V
2101	9965 000 10115	390pF 10% 50V
2102	9965 000 10115	390pF 10% 50V
2103	2020 552 96305	4U7 20-80% 10V
2104	9965 000 10115	390pF 10% 50V
2105	9965 000 10115	390pF 10% 50V
2106	2020 552 96305	4U7 20-80% 10V
2107	9965 000 10115	390pF 10% 50V
2108	9965 000 10115	390pF 10% 50V
2109	2020 552 96305	4U7 20-80% 10V
2110	9965 000 10115	390pF 10% 50V
2111	9965 000 10115	390pF 10% 50V
2112	2020 552 96305	4U7 20-80% 10V
2113	5322 122 32658	22pF 5% 50V
2114	5322 122 32658	22pF 5% 50V
2115	5322 122 32658	22pF 5% 50V
2116	5322 122 32658	22pF 5% 50V
2117	5322 122 32658	22pF 5% 50V
2118	5322 122 32658	22pF 5% 50V
2120	5322 122 32658	22pF 5% 50V
2161	4822 124 12392	47µF 20% 16V
2184	2020 552 96305	4U7 20-80% 10V
2201	4822 126 14585	100nF 10% 50V
2202	4822 126 14585	100nF 10% 50V
2203	4822 126 14585	100nF 10% 50V
2204	4822 126 14585	100nF 10% 50V
2205	4822 126 14076	220nF 25V
2206	4822 126 13693	56pF 1% 63V
2207	5322 126 10184	820pF 5% 50V
2208	4822 126 14585	100nF 10% 50V
2209	4822 124 40248	10µF 20% 63V
2210	4822 126 14043	1µF 20-80% 16V
2211	4822 126 13482	470nF 20-80% 16V
2213	5322 122 32654	22nF 10% 63V
2214	5322 122 32654	22nF 10% 63V
2215	5322 122 32654	22nF 10% 63V
2216	4822 124 81144	1000µF 16V
2217	5322 122 32654	22nF 10% 63V
2219	4822 126 14076	220nF 25V
2220	4822 121 51252	470nF 5% 63V
2221	5322 122 32654	22nF 10% 63V
2230	4822 124 40769	4.7µF 20% 100V
2234	4822 126 14585	100nF 10% 50V
2238	5322 126 10511	1nF 5% 50V
2239	5322 126 10511	1nF 5% 50V
2240	5322 126 10511	1nF 5% 50V
2241	4822 126 13344	1.5nF 5% 63V
2242	4822 126 14043	1µF 20-80% 16V
2243	4822 122 33177	10nF 20% 50V
2244	5322 121 42386	100nF 5% 63V
2245	4822 126 14107	330nF 20-80% 25V
2247	4822 124 81144	1000µF 16V
2248	5322 122 32654	22nF 10% 63V
2249	5322 122 32654	22nF 10% 63V
2250	4822 124 22652	2.2µF 20% 50V
2252	5322 126 10511	1nF 5% 50V
2253	5322 126 10511	1nF 5% 50V
2254	4822 051 20008	Jumper ()
2330	4822 121 51473	470nF 20% 63V
2340	4822 124 11565	10µF 20% 250V
2341	4822 126 13599	3.3nF 10% 500V
2342	5322 116 80853	560pF 5% 63V
2343	4822 126 12278	3300pF 10% 2kV
2344	4822 051 20008	Jumper ()
2345	4822 122 31175	1nF 10% 500V
2360	4822 124 40764	22µF 100 V
2361	4822 124 40207	100µF 20% 25V
2365	4822 121 40516	22nF 10% 250V
2366	4822 121 40334	100nF 10% 100V
2367	5322 122 33861	120pF 10% 50V
2368	5322 122 32654	22nF 10% 63V
2376	4822 126 14585	100nF 10% 50V
2377	4822 126 14585	100nF 10% 50V
2401	5322 124 41379	2.2µF 20% 50V
2402	4822 122 31177	470pF 10% 500V
2404	4822 124 41751	47µF 20% 50V
2405	4822 124 40196	220µF 20% 16V
2441	4822 124 21913	1µF 20% 63V
2443	4822 126 13751	47nF 10% 63V
2444	4822 124 21913	1µF 20% 63V
2450	4822 124 11575	47µF 20% 160V
2451	4822 121 51305	15nF 10% 50V
2452	4822 126 10326	180pF 5% 63V
2455	4822 124 40433	47µF 20% 25V
2457	4822 121 42365	330nF 5% 250V
2458	4822 124 12438	2.2µF 20% 100V
2459	4822 126 13185	680pF 10% 500V
2460	5322 122 32531	100pF 5% 50V
2463	4822 126 14237	470pF 10% 2kV
2464	4822 121 10739	2.2µF 5% 160V
2465	4822 121 70637	8.2nF 5% 1600V
2466	2222 347 90219	15nF 10% 400V
2471	5322 121 42386	100nF 5% 63V
2472	4822 121 41854	150nF 5% 63V
2473	5322 121 42386	100nF 5% 63V
2474	4822 122 33127	2.2nF 10% 63V
2475	4822 122 33127	2.2nF 10% 63V
2476	5322 126 10223	4.7nF 10% 63V
2480	5322 121 10472	47µF
2481	4822 122 31177	470pF 10% 500V
2482	4822 121 51408	33nF 10% 250V
2485	4822 124 12265	4.7µF 20% 250V
2486	2020 021 91577	470µF 20% 16V
2487	4822 124 80604	47µF 20% 50V
2488	4822 124 81145	1000µF 20% 16V
2489	2020 021 91577	470µF 20% 16V
2491	4822 122 31175	1nF 10% 500V
2493	2222 347 90219	15nF 10% 400V
2500	4822 126 13589	470nF 275V
2501	4822 126 14153	2.2nF 10%B 1kV
2502	4822 126 14153	2.2nF 10%B 1kV
2503	4822 124 12415	220µF 20% 400V
2505	4822 126 14153	2.2nF 10%B 1kV
2507	5322 122 34099	470pF 10% 63V
2508	4822 122 50116	470pF 10% 1kV
2509	4822 121 10711	100nF 20% 275V
2515	4822 126 14049	1.5nF 20% 250V
2516	4822 126 13867	330pF 20% 250V
2520	4822 126 14585	100nF 10% 50V
2521	4822 124 81151	22µF 50V
2522	4822 126 14585	100nF 10% 50V
2523	4822 126 13862	1.5nF 10% 2kV
2525	5322 122 34099	470pF 10% 63V
2526	4822 126 13482	470nF 20-80% 16V
2527	4822 122 33127	2.2nF 10% 63V
2528	5322 122 31647	1nF 10% 63V
2540	4822 122 33177	10nF 20% 50V
2541	4822 122 33177	10nF 20% 50V
2560	4822 126 14152	680pF 10% 1kV
2561	2020 021 91496	100µF 20% 160V
2562	5322 122 32331	1nF 10% 100V
2563	5322 121 42386	100nF 5% 63V
2564	4822 124 12417	2200µF 20% 25V
2567	4822 124 40433	47µF 20% 25V
2568	4822 124 21913	1µF 20% 63V
2580	4822 124 81286	47µF 20% 16V
2601	4822 126 14076	220nF 25V
2602	5322 122 32531	100pF 5% 50V
2606	5322 122 31647	1nF 10% 63V
2607	2238 861 18339	33pF 1% 50V
2608	4822 126 14043	1µF 20-80% 16V
2609	2238 861 18339	33pF 1% 50V
2611	4822 126 14043	1µF 20-80% 16V
2612	4822 126 13694	68pF 1% 63V
2613	4822 126 13694	68pF 1% 63V
2615	5322 122 31647	1nF 10% 63V
2618	4822 126 14043	1µF 20-80% 16V
2619	4822 126 14043	1µF 20-80% 16V
2801	4822 124 80791	470µF 16V 20%
2802	4822 126 14076	220nF 25V
2803	2020 552 96305	4U7 20-80% 10V
2804	2020 552 96305	4U7 20-80% 10V
2805	2020 552 96305	4U7 20-80% 10V
2831	5322 122 32447	1pF 5% 63V
2832	5322 122 32447	1pF 5% 63V
2833	4822 126 13692	47pF 1% 63V
2834	5322 122 32268	470pF 5% 63V
2835	4822 122 33575	220pF 5% 63V
2836	4822 126 13344	1.5nF 5% 63V
2837	4822 124 40769	4.7µF 20% 100V
2840	4822 126 14585	100nF 10% 50V
2841	4822 124 40248	10µF 20% 63V
2842	4822 126 14585	100nF 10% 50V
2843	4822 124 40248	10µF 20% 63V
2844	4822 124 40248	10µF 20% 63V
2845	4822 126 14585	100nF 10% 50V
2846	4822 124 40207	100µF 20% 25V
2849	5322 126 10511	1nF 5% 50V
2850	5322 126 10511	1nF 5% 50V
2851	2020 552 96305	4U7 20-80% 10V
2852	5322 126 10511	1nF 5% 50V
2853	2020 552 96305	4U7 20-80% 10V
2854	5322 126 10511	1nF 5% 50V
2855	4822 122 30045	27pF 2% 100V
2856	4822 126 13486	15pF 2% 63V
2857	5322 122 33538	150pF 2% 63V
2858	5322 126 10511	1nF 5% 50V
2859	5322 126 10511	1nF 5% 50V
2860	4822 126 13693	56pF 1% 63V
2887	4822 122 33177	10nF 20% 50V
2894	4822 122 33575	220pF 5% 63V
2895	5322 116 80853	560pF 5% 63V
2897	4822 122 33172	390pF 5% 50V
2898	4822 122 33177	10nF 20% 50V
2902	4822 124 81144	1000µF 16V
2903	4822 124 21913	1µF 20% 63V
2904	4822 126 13482	470nF 20-80% 16V
2905	5322 116 80853	560pF 5% 63V
2906	4822 126 13482	470nF 20-80% 16V
2907	5322 116 80853	560pF 5% 63V
2908	4822 124 40248	10µF 20% 63V

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3000	4822 116 52175	100Ω 5% 0.5W
3001	4822 116 52175	100Ω 5% 0.5W
3002	4822 117 10833	10kΩ 1% 0.1W
3002	4822 051 20008	Jumper (0805)
3003	4822 117 11139	1.5kΩ 1% 0.1W
3005	4822 116 52175	100Ω 5% 0.5W
3006	4822 117 11449	2.2kΩ 5% 0.1W
3007	4822 117 11507	6.8kΩ 1% 0.1W

3008	4822 117 11449	2.2kΩ 5% 0.1W
3010	4822 117 13577	330Ω 1% 1.25W
3101	4822 116 83868	150Ω 5% 0.5W
3102	3198 021 52240	220kΩ 5%
3103	4822 116 83868	150Ω 5% 0.5W
3104	4822 117 10834	47kΩ 1% 0.1W
3105	4822 116 83868	150Ω 5% 0.5W
3106	3198 021 52240	220kΩ 5%
3107	4822 116 83868	150Ω 5% 0.5W
3108	4822 117 10834	47kΩ 1% 0.1W
3109	4822 116 52201	75Ω 5% 0.5W
3110	4822 116 52175	100Ω 5% 0.5W
3111	4822 116 52264	27kΩ 5% 0.5W
3112	4822 117 11507	6.8kΩ 1% 0.1W
3113	4822 116 52201	75Ω 5% 0.5W
3114	4822 116 52175	100Ω 5% 0.5W
3115	4822 116 52201	75Ω 5% 0.5W
3116	4822 116 52175	100Ω 5% 0.5W
3117	4822 116 52201	75Ω 5% 0.5W
3118	4822 116 52175	100Ω 5% 0.5W
3119	4822 116 52199	68Ω 5% 0.5W
3120	4822 051 10102	1kΩ 2% 0.25W
3121	4822 116 52201	75Ω 5% 0.5W
3155	4822 116 52195	47Ω 5% 0.5W
3200	4822 116 83881	390Ω 5% 0.5W
3201	4822 116 52175	100Ω 5% 0.5W
3202	4822 116 52175	100Ω 5% 0.5W
3203	4822 116 52175	100Ω 5% 0.5W
3204	4822 116 52257	22kΩ 5% 0.5W
3206	3198 021 52240	220kΩ 5%
3207	4822 050 11002	1kΩ 1% 0.4W
3208	4822 117 11503	220Ω 1% 0.1W
3209	4822 117 12521	68Ω 1% 0.1W
3212	4822 051 20471	470Ω 5% 0.1W
3213	4822 051 20561	560Ω 5% 0.1W
3214	4822 116 52175	100Ω 5% 0.5W
3217	4822 051 20334	330kΩ 5% 0.1W
3218	4822 117 11149	82kΩ 1% 0.1W
3219	4822 117 11449	2.2kΩ 5% 0.1W
3223	4822 117 11373	100Ω 1%
3226	4822 051 20561	560Ω 5% 0.1W
3229	4822 117 11454	820Ω 1% 0.1W
3230	4822 117 11504	270Ω 1% 0.1W
3231	4822 051 20561	560Ω 5% 0.1W
3233	4822 117 11454	820Ω 1% 0.1W
3235	4822 116 52175	100Ω 5% 0.5W
3236	4822 051 20154	150kΩ 5% 0.1W
3237	4822 051 20122	1.2kΩ 5% 0.1W
3238	4822 051 20561	560Ω 5% 0.1W
3239	4822 117 11504	270Ω 1% 0.1W
3240	4822 117 10837	100kΩ 1% 0.1W
3241	4822 051 20223	22kΩ 5% 0.1W
3242	4822 117 11383	12kΩ 1% 0.1W
3244	4822 116 52231	820Ω 5% 0.5W
3245	4822 051 20393	39kΩ 5% 0.1W
3246	4822 117 10833	10kΩ 1% 0.1W
3247	2120 108 92641	180kΩ 1%
3248	4822 051 20333	33kΩ 5% 0.1W
3249	4822 116 52231	820Ω 5% 0.5W
3250	4822 116 52303	8.2kΩ 5% 0.5W
3251	4822 116 52175	100Ω 5% 0.5W
3256	4822 051 10102	1kΩ 2% 0.25W
3257	4822 051 20105	1M Ω 5% 0.1W
3258	2120 108 92641	180kΩ 1%
3259	4822 051 20475	4.7M Ω 5% 0.1W
3270	4822 051 20008	Jumper (0805)
3331	4822 116 52175	100Ω 5% 0.5W
3332	3198 013 01020	1kΩ 20% 0.5W
3333	4822 116 52175	100Ω 5% 0.5W
3334	3198 013 01020	1kΩ 20% 0.5W
3335	4822 116 52175	100Ω 5% 0.5W
3336	3198 013 01020	1kΩ 20% 0.5W
3340	4822 052 11109	10Ω 5% 0.5W
3341	4822 052 10108	1Ω 5% 0.33W
3342	4822 052 10108	1Ω 5% 0.33W
3343	3198 013 01520	1.5kΩ 20% 0.5W
3344	4822 116 52186	22Ω 5% 0.5W
3345	4822 117 13016	1M A/50V MAX 115V
3346	4822 116 52186	22Ω 5% 0.5W
3347	4822 051 10102	1kΩ 2% 0.25W
3348	4822 051 10102	1kΩ 2% 0.25W
3350	4822 051 10102	1kΩ 2% 0.25W
3351	4822 051 10102	1kΩ 2% 0.25W
3353	4822 051 10102	1kΩ 2% 0.25W
3354	4822 051 10102	1kΩ 2% 0.25W
3360	4822 117 13424	8.2kΩ 5% 5W
3362	4822 052 10109	10Ω 5% 0.33W
3363	4822 116 52231	820Ω 5% 0.5W
3364	4822 116 80176	1Ω 5% 0.5W
3368	4822 117 12955	2.7kΩ 1% 0.1W
3369	4822 117 10833	10kΩ 1% 0.1W
3370	4822 117 11503	220Ω 1% 0.1W
3371	4822 051 20472	4.7kΩ 5% 0.1W
3373	4822 117 11503	220Ω 1% 0.1W

3374	4822 116 52291	56kΩ 5% 0.5W
3375	4822 116 83872	220Ω 5% 0.5W
3376	4822 051 20008	Jumper (0805)
3377	4822 050 24708	4.7Ω 1% 0.6W
3378	4822 117 11148	56kΩ 1% 0.1W
3379	4822 051 20472	4.7kΩ 5% 0.1W
3382	4822 117 11139	1.5kΩ 1% 0.1W
3383	4822 051 20471	470Ω 5% 0.1W
3384	4822 117 11454	820Ω 1% 0.1W
3385	4822 116 80176	1Ω 5% 0.5W
3386	4822 051 20472	4.7kΩ 5% 0.1W
3387	4822 051 20471	470Ω 5% 0.1W
3390	4822 051 20109	10Ω 5% 0.1W
3391	4822 051 20109	10Ω 5% 0.1W
3392	4822 117 11373	100Ω 1%
3393	4822 051 20472	4.7kΩ 5% 0.1W
3400	4822 116 52219	330Ω 5% 0.5W
3401	4822 116 52257	22kΩ 5% 0.5W
3403	4822 116 52297	68kΩ 5% 0.5W
3404	4822 050 11002	1kΩ 1% 0.4W
3405	4822 050 24708	4.7Ω 1% 0.6W
3406	4822 050 24708	4.7Ω 1% 0.6W
3408	4822 116 52175	100Ω 5% 0.5W
3410	4822 050 21003	10kΩ 1% 0.6W
3411	4822 052 10478	4.7Ω 5% 0.33W
3441	4822 117 11373	100Ω 1%
3442	4822 051 20008	Jumper (0805)
3443	4822 051 20105	1M Ω 5% 0.1W
3445	4822 116 52244	15kΩ 5% 0.5W
3446	4822 116 52289	5.6kΩ 5% 0.5W
3447	4822 116 52213	180Ω 5% 0.5W
3448	4822 116 52231	820Ω 5% 0.5W
3449	4822 116 52199	68Ω 5% 0.5W
3450	4822 116 52191	33Ω 5% 0.5W
3451	4822 052 10109	10Ω 5% 0.33W
3452	4822 050 24703	47kΩ 1% 0.6W
3453	4822 050 11002	1kΩ 1% 0.4W
3454	4822 050 21503	15kΩ 1% 0.6W
3455	4822 053 11688	6.8Ω 5% 2W
3456	4822 051 20008	Jumper (0805)
3457	4822 051 20008	Jumper (0805)
3458	4822 050 11002	1kΩ 1% 0.4W
3459	4822 053 11153	15kΩ 5% 2W
3460	4822 116 52276	3.9kΩ 5% 0.5W
3463	4822 116 52191	33Ω 5% 0.5W
3465	2312 915 12203	22kΩ 1%
3468	4822 116 52213	180Ω 5% 0.5W
3469	4822 116 52269	3.3kΩ 5% 0.5W
3470	2120 108 92641	180kΩ 1%
3471	4822 050 25608	5.6Ω 1% 0.6W
3472	4822 050 25608	5.6Ω 1% 0.6W
3473	4822 050 25608	5.6Ω 1% 0.6W
3474	4822 050 22202	2.2kΩ 1% 0.6W
3475	4822 050 22202	2.2kΩ 1% 0.6W
3477	4822 116 83868	150Ω 5% 0.5W
3478	4822 116 83868	150Ω 5% 0.5W
3479	4822 117 12955	2.7kΩ 1% 0.1W
3480	4822 116 80676	1Ω5 5% 0.5W
3481	4822 050 22703	27kΩ 1% 0.6W
3482	4822 050 23902	3.9kΩ 1% 0.6W
3484	4822 116 52276	3.9kΩ 5% 0.5W
3486	4822 053 12339	33Ω 5% 3W
3488	4822 052 11478	4.7Ω 5% 0.5W
3490	4822 116 52303	8.2kΩ 5% 0.5W
3491	4822 117 10833	10kΩ 1% 0.1W
3492	4822 051 10102	1kΩ 2% 0.25W
3493	4822 052 10688	6.8Ω 5% 0.33W
3494	4822 052 11478	4.7Ω 5% 0.5W
3495	4822 051 20223	22kΩ 5% 0.1W
3496	4822 117 10837	100kΩ 1% 0.1W
3497	4822 117 10837	100kΩ 1% 0.1W
3498	4822 117 11383	12kΩ 1% 0.1W
3504	4822 116 10105	PTC 9Ω 220V
3506	4822 053 21155	1.5M Ω 5% 0.5W
3507	4822 252 11215	DSP301N-A21F
3508	4822 116 83872	220Ω 5% 0.5W
3510	4822 117 12765	4.7Ω 20% 3W
3519	4822 116 83876	270Ω 5% 0.5W
3520	4822 051 20122	1.2kΩ 5% 0.1W
3521	4822 116 52186	22Ω 5% 0.5W
3522	4822 051 20394	390kΩ 5% 0.1W
3523	4822 052 10479	47Ω 5% 0.33W
3524	4822 117 11148	56kΩ 1% 0.1W
3525	4822 051 10102	1kΩ 2% 0.25W
3526	3198 012 11570	0.15Ω 5% 1W
3527	4822 117 11744	0.22Ω 5% 1W
3528	4822 051 20109	10Ω 5% 0.1W
3529	4822 117 10834	47kΩ 1% 0.1W
3530	4822 117 10833	10kΩ 1% 0.1W
3531	4822 051 20472	4.7kΩ 5% 0.1W
3532	4822 052 10222	2.2kΩ 5% 0.33W
3541	4822 051 20471	470Ω 5% 0.1W
3542	4822 117 11139	1.5kΩ 1% 0.1W
3543	4822 050 28203	82kΩ 1% 0.6W

3544	2120 108 92624	4.7kΩ 1%
3545	4822 051 20274	270kΩ 5% 0.1W
3548	4822 116 83933	15kΩ 1% 0.1W
3552	4822 051 20472	4.7kΩ 5% 0.1W
3557	4822 051 10102	1kΩ 2% 0.25W
3561	4822 116 83872	220Ω 5% 0.5W
3562	4822 117 11383	12kΩ 1% 0.1W
3563	4822 051 20822	8.2kΩ 5% 0.1W
3564	2120 106 90565	0.1Ω 5%
3565	4822 053 10331	330Ω 5% 1W
3566	4822 117 11449	2.2kΩ 5% 0.1W
3569	4822 051 20562	5.6kΩ 5% 0.1W
3580	4822 117 10834	47kΩ 1% 0.1W
3594	4822 117 11503	220Ω 1% 0.1W
3595	3198 021 52240	220kΩ 5%
3596	3198 021 52240	220kΩ 5%
3603	4822 116 52175	100Ω 5% 0.5W
3604	4822 116 52175	100Ω 5% 0.5W
3605	4822 051 20472	4.7kΩ 5% 0.1W
3606	4822 116 52256	2.2kΩ 5% 0.5W
3607	4822 116 52256	2.2kΩ 5% 0.5W
3608	4822 116 52175	100Ω 5% 0.5W
3609	4822 050 11002	1kΩ 1% 0.4W
3610	4822 116 52303	8.2kΩ 5% 0.5W
3611	4822 117 11373	100Ω 1%
3612	4822 116 52303	8.2kΩ 5% 0.5W
3614	4822 116 52283	4.7kΩ 5% 0.5W
3618	4822 050 21003	10kΩ 1% 0.6W
3622	4822 117 11373	100Ω 1%
3623	4822 051 20472	4.7kΩ 5% 0.1W
3624	4822 116 52175	100Ω 5% 0.5W
3625	4822 116 52175	100Ω 5% 0.5W
3626	4822 051 20472	4.7kΩ 5% 0.1W
3627	4822 051 20472	4.7kΩ 5% 0.1W
3628	4822 117 10833	10kΩ 1% 0.1W
3630	4822 117 11449	2.2kΩ 5% 0.1W
3632	4822 051 20008	Jumper (0805)
3634	4822 116 52175	100Ω 5% 0.5W
3635	4822 116 52175	100Ω 5% 0.5W
3636	4822 117 11373	100Ω 1%
3692	4822 051 10102	1kΩ 2% 0.25W
3694	4822 051 20472	4.7kΩ 5% 0.1W
3802	4822 116 83872	220Ω 5% 0.5W
3803	4822 117 11149	82kΩ 1% 0.1W
3804	3198 021 52240	220kΩ 5%
3805	4822 051 10102	1kΩ 2% 0.25W
3806	4822 117 11149	82kΩ 1% 0.1W
3807	3198 021 52240	220kΩ 5%
3808	4822 050 11002	1kΩ 1% 0.4W
3809	4822 117 11927	75Ω 1% 0.1W
3810	4822 117 11927	75Ω 1% 0.1W
3831	4822 117 10834	47kΩ 1% 0.1W
3832	4822 116 52175	100Ω 5% 0.5W
3833	4822 116 52175	100Ω 5% 0.5W
3836	4822 050 11002	1kΩ 1% 0.4W
3837	4822 117 11373	100Ω 1%
3838	4822 051 10102	1kΩ 2% 0.25W
3839	4822 117 11373	100Ω 1%
3840	4822 051 20472	4.7kΩ 5% 0.1W
3841	4822 051 20822	8.2kΩ 5% 0.1W
3842	4822 051 10102	1kΩ 2% 0.25W
3849	4822 051 20471	470Ω 5% 0.1W
3901	4822 051 10102	1kΩ 2% 0.25W
3902	4822 051 20332	3.3kΩ 5% 0.1W
3903	4822 117 11383	12kΩ 1% 0.1W
3904	4822 117 10833	10kΩ 1% 0.1W
3905	4822 117 11383	12kΩ 1% 0.1W
3906	4822 117 10833	10kΩ 1% 0.1W
3907	4822 117 11507	6.8kΩ 1% 0.1W
4xxx	4822 051 10008	0Ω 5% 0.25W (1206)
4xxx	4822 051 20008	0Ω 5% 0.25W (0805)

5001	4822 157 51216	5.6µH
5002	2422 535 94639	10µH 20% LHL08
5003	4822 157 11866	1.8µH 10%
5201	4822 157 11868	2.7µH 5%
5204	4822 157 11411	Bead 100mH z
5205	4822 157 11411	Bead 100mH z
5242	4822 157 11706	10µH 5%
5342	4822 157 50961	22µH
5343	2722 122 00333	Delay line 160ns
5344	2722 122 00333	Delay line 160ns
5345	2722 122 00333	Delay line 160ns
5360	4822 157 51216	5.6µH
5401	4822 157 11885	1000µH 5%
5445	2422 531 02464	LOT 1342.0033C
5451	4822 157 11869	33µH 10% LHL08TB330K
5452	4822 157 11411	Bead 100mH z
5457	4822 157 11076	Linearity coil
5461	2422 536 00181	Transformer driver SRW0913DR-T

5463	2422 536 00048	Bridge coil C957-02 Y
5471	3198 018 73380	3.3µH 20%
5472	4822 157 51157	3.3µH
5480	4822 157 50961	22µH
5500	4822 157 10476	DMF-2820H
5501	4822 157 11523	Line filter 5mH /2A
5520	3128 138 39721	Transformer CT425V
5521	4822 526 10704	Bead 100mH z
5560	4822 526 10704	Bead 100mH z
5561	4822 157 52392	27µH
5562	4822 526 10704	Bead 100mH z
5564	4822 526 10704	Bead 100mH z
5602	4822 157 11867	5.6µH 5%
5603	4822 157 11867	5.6µH 5%
5604	4822 157 11867	5.6µH 5%
5672	4822 157 71401	27µH
5678	4822 157 71401	27µH
5831	4822 157 11139	6.8µH 5%
5832	4822 157 11139	6.8µH 5%
5833	4822 157 11139	6.8µH 5%
5835	3198 018 31290	12µH 10%

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6001	4822 130 34142	BZX79-B33
6002	4822 130 11397	BAS316
6004	4822 130 11525	1SS356
6101	4822 130 10837	UDZS8.2B
6103	4822 130 10837	UDZS8.2B
6104	4822 130 10837	UDZS8.2B
6105	4822 130 10837	UDZS8.2B
6106	4822 130 11416	PDZ6.8B
6201	4822 130 11397	BAS316
6202	4822 130 11397	BAS316
6206	4822 130 11416	PDZ6.8B
6207	9322 179 26673	ZTE2
6331	4822 130 30842	BAV21
6333	4822 130 30842	BAV21
6335	4822 130 30842	BAV21
6360	4822 130 30621	1N4148
6361	4822 130 11397	BAS316
6362	4822 130 11397	BAS316
6364	4822 130 11397	BAS316
6365	4822 130 11397	BAS316
6400	4822 050 21002	1kΩ 1% 0,6W
6401	4822 130 34383	BZX79-B47
6445	4822 130 11551	UDZS10B
6447	4822 130 30621	1N4148
6448	4822 130 34167	BZX79-B6V2
6449	5322 130 34337	BAV99
6453	3198 020 55680	BZX384-C5V6
6460	9340 559 50112	BY228/24
6461	4822 130 80572	RGP30J
6462	4822 130 34197	BZX79-B12
6465	4822 130 30842	BAV21
6466	4822 130 30842	BAV21
6467	4822 130 11397	BAS316
6468	4822 130 11397	BAS316
6469	4822 130 42606	BYD33J
6470	5322 130 34337	BAV99
6476	4822 130 34281	BZX79-B15
6481	4822 130 34173	BZX79-B5V6
6482	4822 130 30862	BZX79-B9V1
6483	4822 130 34142	BZX79-B33
6485	4822 130 42606	BYD33J
6486	9322 164 42682	EGP20DL-5100
6487	4822 130 42488	BYD33D
6488	9322 164 42682	EGP20DL-5101
6500	9322 132 55667	Bridge coil GBU4JL-7002
6520	4822 130 42488	BYD33D
6522	4822 130 11152	UDZ18B
6523	4822 130 30621	1N4148
6524	4822 130 31083	BYW55
6525	4822 130 31083	BYW55
6526	9340 548 67115	PDZ22B
6540	4822 130 34167	BZX79-B6V2
6541	4822 130 11551	UDZS10B
6560	3139 120 52021	BYV29X-500
6561	4822 130 32715	SB340
6563	4822 130 11397	BAS316
6565	5322 130 34331	BAV70
6566	4822 130 30621	1N4148
6567	4822 130 11148	UDZ4.7B
6569	4822 130 11397	BAS316
6570	9322 163 91685	BZX384-C6V2
6580	4822 130 11397	BAS316
6808	9322 179 26673	ZTE3
6831	4822 130 30621	1N4148
6901	4822 051 20008	Jumper (0805)

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7001	4822 130 63732	MMUN2212
7101	5322 130 60159	BC846B
7200	9352 684 13557	TDA9565H/N1/5
7201	5322 130 60159	BC846B
7204	4822 130 60373	BC856B
7206	5322 130 42755	BC847C
7209	5322 130 42718	BFS20
7210	5322 130 42718	BFS20
7330	9352 561 40112	TDA6108
7331	5322 130 60159	BC846B
7332	5322 130 60159	BC846B
7333	5322 130 60159	BC846B
7360	4822 130 40959	BC547B
7362	9322 166 55682	2SA1358
7363	4822 130 40959	BC547B
7365	9322 166 56682	2SC3421
7366	4822 130 41646	BF423
7367	4822 130 44568	BC557B
7400	9322 157 37687	STP3NC60FP
7441	4822 130 60373	BC856B
7443	4822 130 44568	BC557B
7450	3198 010 44010	PDTA114ET
7460	9340 550 92127	BU4508DX
7461	4822 130 40981	BC337-25
7462	9340 547 00215	PDTC143ZT
7463	4822 130 41246	BC327-25
7471	9352 701 64112	TDA8359J/N2
7480	4822 130 40823	BD139
7482	4822 130 40823	BD139
7515	9322 175 72667	TCET1104(G)
7520	9352 673 56112	TEA1507P/N1
7521	9322 160 63687	STP7NC80ZFP
7522	5322 130 60159	BC846B
7540	4822 130 40959	BC547B
7541	4822 130 11155	PDTC114ET
7542	4822 130 60373	BC856B
7560	4822 209 16978	LF33CV
7561	9340 547 00215	PDTC143ZT
7580	4822 130 60373	BC856B
7602	9322 147 25682	M24C16-WBN6
7606	9340 547 00215	PDTC143ZT
7801	5322 209 11102	HEF4052BT
7802	5322 209 14481	HEF4053BT
7803	5322 130 60159	BC846B
7804	5322 130 60159	BC846B
7831	9322 182 56682	MSP3411G-PO-B11
7832	5322 130 60159	BC846B
7833	5322 130 60159	BC846B
7834	5322 130 60159	BC846B
7835	5322 130 60159	BC846B
7901	9322 158 65667	AN7522N
9611	4822 157 52392	27UH

Side AV Panel [C+E1]

Various

0232▲	4822 267 31014	Headphone socket
0250	4822 265 11606	3p
0251	2422 025 15849	6p female
0254	4822 267 10734	5p
0255	4822 267 10565	4p

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2171	5322 122 32311	470pF 10% 100V
2172	5322 122 32311	470pF 10% 100V
2173	5322 122 32311	470pF 10% 100V
2174	5322 122 32311	470pF 10% 100V
2176	5322 122 32311	470pF 10% 100V
2177	4822 124 40248	10µF 20% 63V
2178	5322 122 32311	470pF 10% 100V
2179	4822 124 40248	10µF 20% 63V

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3150	4822 116 83884	47kΩ 5% 0.5W
3151	4822 116 83868	150Ω 5% 0.5W
3152	4822 116 83884	47kΩ 5% 0.5W
3153	4822 116 83868	150Ω 5% 0.5W
3155	4822 116 52201	75Ω 5% 0.5W
3156	4822 116 52206	120Ω 5% 0.5W
3156	4822 116 83876	270Ω 5% 0.5W
3157	4822 116 52206	120Ω 5% 0.5W
3157	4822 116 83876	270Ω 5% 0.5W

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6161	4822 130 34278	BZX79-B6V8

DVD Interface Panel [M]

Various

0001	9305 023 61101	VAL6011/01
0194	3104 301 09451	Cable 3p 560mm
0198	3139 131 01152	Cable foil 22p 340mm
0199	3139 131 01162	Cable foil 16p 340mm
0227	2422 025 16382	3p male
0229	4822 267 10735	3p
0240	2422 025 11244	7p female
0251	4822 267 10565	4p
0254	4822 265 11154	22p
0255	2422 025 16525	16p male
0258	3139 131 01191	Cable 12p 280mm
0264	4822 267 10735	3p
0265	2422 025 08333	12p male
0267	4822 267 10748	3p
1100	4822 267 31729	Cinch socket 1p
1100	2422 025 16543	4p male
1104	2422 025 15963	24p female
1106	2422 025 16158	8p female
1110	4822 276 13775	Switch
1205	2422 540 98428	Crystal 8.467MHz
1300	2422 540 98426	Crystal 6MHz
1301	4822 267 51454	11p female
1330	4822 071 52502	Fuse 2.5A
1331	4822 071 52502	Fuse 2.5A
1332	2422 086 10783	Fuse 2A 250V
1400	2422 540 98525	Crystal 8MHz
1501	2422 025 16702	5p male
1600	2422 025 16705	12p male
1602	2422 025 16703	7p male
1603	2422 025 16389	22p female
1604	2422 025 16388	16p male

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2100	2238 586 59812	100nF 50V
2101	2238 586 59812	100nF 50V
2101	4822 126 11785	47pF 5% 50V
2102	4822 124 11947	10µF 20% 16V
2103	4822 126 11785	47pF 5% 50V
2103	4822 124 80151	47µF 16V
2104	2238 586 59812	100nF 50V
2104	4822 126 13193	4.7nF 10% 63V
2105	4822 122 33761	22pF 5% 50V
2107	4822 126 13956	68pF 5% 63V
2108	4822 126 14315	390pF 5% 50V
2109	2020 552 96643	1.5nF 5% 50V
2110	2222 861 15222	2N2 5% 63V
2111	2238 586 59812	100nF 50V
2111	3198 017 41050	1µF 10V
2112	5322 126 11578	1nF 10% 50V
2112	3198 017 41050	1µF 10V
2113	2238 586 59812	100nF 50V
2114	2020 552 94427	100pF 5%
2115	2238 586 59812	100nF 50V
2116	2238 586 59812	100nF 50V
2117	2238 586 59812	100nF 50V
2118	3198 017 42230	22nF 50V
2119	3198 017 42230	22nF 50V
2120	2238 586 59812	100nF 50V
2121	4822 126 13879	220nF 20-80% 16V
2121	4822 124 40433	47µF 20% 25V
2122	2238 586 59812	100nF 50V
2122	3198 017 42230	22nF 50V
2123	2238 586 59812	100nF 50V
2123	4822 124 40248	10µF 20% 63V
2124	2238 586 59812	100nF 50V
2124	5322 126 11583	10nF 10% 50V
2125	2238 586 59812	100nF 50V
2125	5322 126 11578	1nF 10% 50V
2126	2238 586 59812	100nF 50V
2126	4822 124 40433	47µF 20% 25V
2127	2238 586 59812	100nF 50V
2127	5322 126 11583	10nF 10% 50V
2128	4822 124 40248	10µF 20% 63V
2128	4822 126 14508	180pF 5% 50V
2129	4822 126 14508	180pF 5% 50V
2130	4822 122 33761	22pF 5% 50V
2131	4822 126 14494	22nF 10% 25V
2136	2238 586 59812	100nF 50V
2137	2238 586 59812	100nF 50V
2138	2238 586 59812	100nF 50V
2139	2238 586 59812	100nF 50V

2140	4822 124 23052	100µF 20% 16V
2140	4822 126 14241	50V 330P
2141	3198 017 41050	1µF 10V
2141	4822 122 33761	22pF 5% 50V
2142	4822 124 23052	100µF 20% 16V
2142	5322 126 11583	10nF 10% 50V
2143	3198 017 41050	1µF 10V
2143	4822 126 13883	220pF 5% 50V
2144	4822 126 13883	220pF 5% 50V
2145	4822 126 13883	220pF 5% 50V
2160	5322 126 11583	10nF 10% 50V
2165	5322 126 11583	10nF 10% 50V
2166	2238 586 59812	100nF 50V
2167	2238 586 59812	100nF 50V
2169	5322 126 11583	10nF 10% 50V
2172	4822 122 33761	22pF 5% 50V
2173	4822 122 33761	22pF 5% 50V
2184	2238 586 59812	100nF 50V
2185	2238 586 59812	100nF 50V
2200	2238 586 59812	100nF 50V
2201	4822 124 11947	10µF 20% 16V
2203	2238 586 59812	100nF 50V
2204	2238 586 59812	100nF 50V
2205	2238 586 59812	100nF 50V
2206	4822 126 14549	33nF 16V
2207	5322 126 11578	1nF 10% 50V
2208	2238 586 59812	100nF 50V
2209	2238 586 59812	100nF 50V
2210	5322 126 11578	1nF 10% 50V
2211	2238 586 59812	100nF 50V
2212	2238 586 59812	100nF 50V
2213	2238 586 59812	100nF 50V
2214	3198 017 42230	22nF 50V
2215	4822 124 23237	22µF 6.3V
2216	5322 126 11578	1nF 10% 50V
2226	2238 586 59812	100nF 50V
2227	2238 586 59812	100nF 50V
2228	2238 586 59812	100nF 50V
2229	2238 586 59812	100nF 50V
2260	4822 126 13883	220pF 5% 50V
2261	5322 126 11583	10nF 10% 50V
2262	5322 126 11583	10nF 10% 50V
2263	2238 586 59812	100nF 50V
2264	2238 586 59812	100nF 50V
2265	2238 586 59812	100nF 50V
2266	4822 126 13879	220nF 20-80% 16V
2267	4822 124 40248	10µF 20% 63V
2268	4822 124 40248	10µF 20% 63V
2280	4822 124 11947	10µF 20% 16V
2281	4822 124 11947	10µF 20% 16V
2300	2238 586 59812	100nF 50V
2300	4822 124 11565	10µF 20% 250V
2301	2238 586 59812	100nF 50V
2301	4822 121 41664	22nF 10% 400V
2302	2238 586 59812	100nF 50V
2302	4822 126 13682	100pF 5% 1kV
2303	4822 124 80349	47µF 20% 6.3V
2304	3198 017 42230	22nF 50V
2305	3198 017 42230	22nF 50V
2306	4822 124 23002	10µF 16V
2307	3198 017 42230	22nF 50V
2309	2238 586 59812	100nF 50V
2310	2238 586 59812	100nF 50V
2311	2020 552 96684	470nF 10% 25V
2313	4822 126 13881	470pF 5% 50V
2314	2238 586 59812	100nF 50V
2315	2238 586 59812	100nF 50V
2315	4822 126 12263	220pF 10% 1kV
2316	4822 126 14549	33nF 16V
2318	5322 122 33861	120pF 10% 50V
2319	4822 126 11669	27pF
2320	2238 586 59812	100nF 50V
2321	2238 586 59812	100nF 50V
2330	4822 124 12417	2200µF 20% 25V
2331	4822 124 80195	470µF 20% 10V
2332	4822 124 12417	2200µF 20% 25V
2333	4822 124 80195	470µF 20% 10V
2335	4822 124 80875	220µF 20% 25V
2337	4822 124 80061	1000µF 20% 25V
2338	4822 124 80061	1000µF 20% 25V
2341	4822 126 13879	220nF 20-80% 16V
2350	5322 126 11578	1nF 10% 50V
2351	5322 126 11578	1nF 10% 50V
2352	5322 126 11578	1nF 10% 50V
2353	5322 126 11578	1nF 10% 50V
2354	2238 586 59812	100nF 50V
2400	2238 586 59812	100nF 50V
2404	2238 586 59812	100nF 50V
2405	2238 586 59812	100nF 50V
2415	2238 586 59812	100nF 50V
2418	4822 124 12095	100µF 20% 16V
2419	4822 124 80349	47µF 20% 6.3V
2420	4822 124 80349	47µF 20% 6.3V
2421	2238 586 59812	100nF 50V

2422	2238 586 59812	100nF 50V
2423	2238 586 59812	100nF 50V
2424	2238 586 59812	100nF 50V
2425	2238 586 59812	100nF 50V
2426	2238 586 59812	100nF 50V
2427	2238 586 59812	100nF 50V
2428	2238 586 59812	100nF 50V
2431	2238 586 59812	100nF 50V
2432	2238 586 59812	100nF 50V
2500	2238 586 59812	100nF 50V
2503	2238 586 59812	100nF 50V
2504	4822 124 23002	10µF 16V
2507	4822 126 14494	22nF 10% 25V
2509	4822 124 23002	10µF 16V
2510	2238 586 59812	100nF 50V
2511	4822 124 23002	10µF 16V
2512	2238 586 59812	100nF 50V
2513	4822 122 33761	22pF 5% 50V
2514	4822 122 33761	22pF 5% 50V
2515	4822 122 33761	22pF 5% 50V
2516	4822 122 33761	22pF 5% 50V
2517	2238 586 59812	100nF 50V
2518	3198 030 74780	4.7µF 20% 35V
2519	2238 586 59812	100nF 50V
2520	2238 586 59812	100nF 50V
2521	2238 586 59812	100nF 50V
2522	2238 586 59812	100nF 50V
2523	2238 586 59812	100nF 50V
2524	2238 586 59812	100nF 50V
2525	2238 586 59812	100nF 50V
2526	2238 586 59812	100nF 50V
2527	2238 586 59812	100nF 50V
2528	2238 586 59812	100nF 50V
2529	3198 030 74780	4.7µF 20% 35V
2530	2238 586 59812	100nF 50V
2531	2238 586 59812	100nF 50V
2532	4822 126 11785	47pF 5% 50V
2533	4822 126 11785	47pF 5% 50V
2534	5322 126 11578	1nF 10% 50V
2535	5322 126 11578	1nF 10% 50V
2536	2238 586 59812	100nF 50V
2537	2238 586 59812	100nF 50V
2538	2238 586 59812	100nF 50V
2539	2238 586 59812	100nF 50V
2540	2238 586 59812	100nF 50V
2600	4822 126 14494	22nF 10% 25V
2601	4822 126 14247	1.5nF 50V
2602	4822 126 14247	1.5nF 50V
2603	2238 586 59812	100nF 50V
2604	4822 124 12095	100µF 20% 16V
2606	4822 124 12095	100µF 20% 16V
2607	4822 124 12095	100µF 20% 16V
2608	4822 124 23002	10µF 16V
2609	4822 124 80151	47µF 16V
2610	2238 586 59812	100nF 50V
2611	4822 124 12095	100µF 20% 16V
2612	2238 586 59812	100nF 50V
2613	2238 586 59812	100nF 50V
2619	2238 586 59812	100nF 50V
2622	4822 126 11785	47pF 5% 50V
2623	4822 126 11785	47pF 5% 50V
2624	4822 126 11785	47pF 5% 50V
2625	4822 126 11785	47pF 5% 50V
2626	4822 126 11785	47pF 5% 50V
2627	4822 126 11785	47pF 5% 50V
2632	4822 124 12095	100µF 20% 16V
2633	4822 124 12095	100µF 20% 16V
2634	2238 586 59812	100nF 50V
2635	2238 586 59812	100nF 50V
2636	2238 586 59812	100nF 50V
2637	2238 586 59812	100nF 50V
2638	2238 586 59812	100nF 50V
2639	2238 586 59812	100nF 50V
2641	4822 122 33761	22pF 5% 50V
2642	4822 122 33761	22pF 5% 50V
2647	4822 124 23002	10µF 16V
2648	2238 586 59812	100nF 50V

3100	4822 117 11152	4.7Ω 5%
3101	4822 051 30101	100Ω 5% 62mW
3102	5322 117 13034	1.5kΩ 1% 63mW
3102	4822 051 30689	68Ω 5% 63mW
3103	5322 117 13034	1.5kΩ 1% 63mW
3104	5322 117 13062	390Ω 1% 63mW
3105	4822 051 30103	10kΩ 5% 62mW
3106	4822 051 30479	47Ω 5% 62mW
3107	4822 051 20228	2.2Ω 5% 0.1W
3108	4822 051 20228	2.2Ω 5% 0.1W
3110	4822 051 30479	47Ω 5% 62mW
3111	5322 117 13058	150Ω 1% 63mW
3112	5322 117 13021	47Ω 1% 63mW
3114	4822 051 20228	2.2Ω 5% 0.1W
3115	4822 051 20228	2.2Ω 5% 0.1W
3116	5322 117 13042	3.9kΩ 1% 63mW
3117	4822 051 30181	180Ω 5% 62mW
3118	4822 051 30681	680Ω 5% 62mW
3119	5322 117 13062	390Ω 1% 63mW
3120	4822 051 30101	100Ω 5% 62mW
3120	4822 051 30102	1kΩ 5% 62mW
3121	4822 116 52175	100Ω 5% 0.5W
3121	4822 051 30273	27kΩ 5% 62mW
3122	4822 051 30101	100Ω 5% 62mW
3122	4822 051 30471	470Ω 5% 62mW
3123	4822 051 30101	100Ω 5% 62mW
3123	4822 051 30103	10kΩ 5% 62mW
3124	4822 051 30222	2.2kΩ 5% 62mW
3124	4822 051 30471	470Ω 5% 62mW
3125	4822 051 30103	10kΩ 5% 62mW
3125	4822 051 30562	5.6kΩ 5% 63mW
3126	4822 051 30101	100Ω 5% 62mW
3126	4822 051 30103	10kΩ 5% 62mW
3127	4822 051 30223	22kΩ 5% 62mW
3128	2322 704 69109	91Ω 1%
3129	4822 051 30392	3.9kΩ 5% 63mW
3130	4822 051 20228	2.2Ω 5% 0.1W
3130	4822 116 52195	47Ω 5% 0.5W
3131	4822 051 20228	2.2Ω 5% 0.1W
3132	4822 051 20228	2.2Ω 5% 0.1W
3133	4822 051 20228	2.2Ω 5% 0.1W
3134	5322 117 13047	330Ω 1% 63mW
3135	4822 117 13613	2.2Ω 5%
3137	4822 117 13613	2.2Ω 5%
3138	5322 117 13053	6.8kΩ 1% 63mW
3139	4822 117 12917	1Ω 5% 62mW
3140	4822 117 13632	100kΩ 1% 0.62W
3140	4822 051 30479	47Ω 5% 62mW
3141	4822 117 13632	100kΩ 1% 0.62W
3141	4822 117 11152	4.7Ω 5%
3142	5322 117 13028	12kΩ 1% 63mW
3142	4822 051 30102	1kΩ 5% 62mW
3143	4822 051 30121	120Ω 5% 62mW
3143	5322 117 13043	220Ω 1% 63mW
3144	2322 704 69109	91Ω 1%
3145	4822 117 13632	100kΩ 1% 0.62W
3146	4822 117 13632	100kΩ 1% 0.62W
3146	4822 051 30103	10kΩ 5% 62mW
3147	4822 051 30103	10kΩ 5% 62mW
3147	4822 051 30102	1kΩ 5% 62mW
3148	4822 051 30121	120Ω 5% 62mW
3148	5322 117 13022	22kΩ 1% 63mW
3153	4822 117 12139	22Ω 5% 62mW
3155	4822 051 30103	10kΩ 5% 62mW
3157	4822 051 30103	10kΩ 5% 62mW
3158	5322 117 13017	100Ω 1% 63mW
3160	4822 051 30101	100Ω 5% 62mW
3161	4822 117 13613	2.2Ω 5%
3162	4822 051 30101	100Ω 5% 62mW
3163	4822 051 30273	27kΩ 5% 62mW
3164	4822 117 13613	2.2Ω 5%
3165	5322 117 13063	120Ω 1% 63mW
3166	4822 051 30393	39kΩ 5% 62mW
3167	4822 051 30101	100Ω 5% 62mW
3168	5322 117 13047	330Ω 1% 63mW
3169	4822 051 30101	100Ω 5% 62mW
3170	4822 051 30101	100Ω 5% 62mW
3171	4822 051 30101	100Ω 5% 62mW
3172	4822 117 13632	100kΩ 1% 0.62W
3173	4822 117 13632	100kΩ 1% 0.62W
3174	4822 117 11152	4.7Ω 5%
3175	4822 117 13613	2.2Ω 5%
3176	4822 051 30153	15kΩ 5% 62mW
3178	4822 117 11151	1Ω 5%
3179	4822 051 30221	220Ω 5% 62mW
3180	4822 117 13632	100kΩ 1% 0.62W
3181	4822 051 30561	560Ω 5% 62mW
3182	5322 117 13018	1kΩ 1% 63mW
3183	5322 117 13017	100Ω 1% 63mW
3184	2322 704 61204	120k 1%
3185	4822 117 11151	1Ω 5%
3187	4822 051 30273	27kΩ 5% 62mW
3189	4822 051 30008	Jumper
3190	4822 051 30008	Jumper
3191	4822 051 30008	Jumper
3192	4822 051 30008	Jumper
3193	4822 051 30008	Jumper
3194	4822 051 30008	Jumper
3195	4822 051 30008	Jumper
3197	4822 051 30008	Jumper
3198	5322 117 13049	470Ω 1% 63mW
3199	5322 117 13042	3.9kΩ 1% 63mW
3200	4822 051 30103	10kΩ 5% 62mW
3200	4822 051 30271	270Ω 5% 62mW
3201	4822 051 30101	100Ω 5% 62mW
3201	4822 117 11151	1Ω 5%
3202	4822 051 30101	100Ω 5% 62mW

3202	4822 117 11151	1Ω 5%
3203	4822 051 30105	1M Ω 5% 62mW
3203	4822 051 30682	6.8kΩ 5% 62mW
3204	4822 051 30331	330Ω 5% 62mW
3204	4822 117 12968	820Ω 5% 0.62W
3205	4822 051 30103	10kΩ 5% 62mW
3205	4822 051 30472	4.7kΩ 5% 62mW
3206	4822 051 30103	10kΩ 5% 62mW
3206	4822 051 30681	680Ω 5% 62mW
3207	4822 051 30271	270Ω 5% 62mW
3208	4822 051 30272	2.7kΩ 5% 62mW
3208	4822 051 30759	75Ω 5% 62mW
3209	4822 051 30472	4.7kΩ 5% 62mW
3209	4822 051 30759	75Ω 5% 62mW
3210	4822 051 30271	270Ω 5% 62mW
3210	4822 051 30392	3.9kΩ 5% 63mW
3211	4822 051 30101	100Ω 5% 62mW
3211	4822 051 30472	4.7kΩ 5% 62mW
3212	4822 051 30101	100Ω 5% 62mW
3212	4822 117 11152	4.7Ω 5%
3213	4822 117 11152	4.7Ω 5%
3213	4822 051 30682	6.8kΩ 5% 62mW
3214	4822 051 30392	3.9kΩ 5% 63mW
3214	4822 117 12968	820Ω 5% 0.62W
3215	4822 051 30103	10kΩ 5% 62mW
3215	4822 051 30472	4.7kΩ 5% 62mW
3216	4822 051 30681	680Ω 5% 62mW
3217	4822 051 30271	270Ω 5% 62mW
3218	4822 117 13501	82Ω 5% 0.62W
3219	4822 051 30103	10kΩ 5% 62mW
3220	4822 051 30103	10kΩ 5% 62mW
3221	4822 051 30103	10kΩ 5% 62mW
3224	4822 051 30151	150Ω 5% 62mW
3225	2322 704 62004	200k 1%
3226	4822 051 30103	10kΩ 5% 62mW
3227	4822 051 30472	4.7kΩ 5% 62mW
3229	4822 051 30123	12kΩ 5% 62mW
3230	4822 051 30103	10kΩ 5% 62mW
3230	4822 051 30223	22kΩ 5% 62mW
3231	4822 051 30103	10kΩ 5% 62mW
3231	4822 117 13525	24kΩ 1% 0.62W
3232	4822 117 13613	2.2Ω 5%
3232	4822 051 30223	22kΩ 5% 62mW
3233	4822 117 13525	24kΩ 1% 0.62W
3234	4822 117 12902	8.2kΩ 1% 63mW
3235	4822 117 13632	100kΩ 1% 0.62W
3236	4822 051 30472	4.7kΩ 5% 62mW
3237	4822 051 30103	10kΩ 5% 62mW
3238	4822 051 30103	10kΩ 5% 62mW
3240	4822 051 30103	10kΩ 5% 62mW
3251	4822 051 30008	Jumper
3252	4822 051 30008	Jumper
3259	4822 117 11151	1Ω 5%
3260	4822 117 11151	1Ω 5%
3261	4822 051 30102	1kΩ 5% 62mW
3262	4822 051 30008	Jumper
3263	4822 051 30008	Jumper
3265	4822 051 30472	4.7kΩ 5% 62mW
3266	4822 117 13632	100kΩ 1% 0.62W
3300	4822 052 10108	1Ω 5% 0.33W
3300	4822 117 11152	4.7Ω 5%
3301	4822 051 30105	1M Ω 5% 62mW
3301	4822 053 11683	68kΩ 5% 2W
3302	4822 051 30221	220Ω 5% 62mW
3304	4822 051 30272	2.7kΩ 5% 62mW
3305	4822 051 30272	2.7kΩ 5% 62mW
3308	4822 051 30103	10kΩ 5% 62mW
3309	4822 051 30103	10kΩ 5% 62mW
3310	4822 051 30103	10kΩ 5% 62mW
3310	4822 051 30223	22kΩ 5% 62mW
3311	4822 051 30181	180Ω 5% 62mW
3311	4822 051 30223	22kΩ 5% 62mW
3312	4822 051 30109	10Ω 5% 62mW
3312	4822 051 30472	4.7kΩ 5% 62mW
3313	4822 051 30103	10kΩ 5% 62mW
3313	4822 051 30472	4.7kΩ 5% 62mW
3314	4822 116 80176	1Ω 5% 0.5W
3315	4822 116 80176	1Ω 5% 0.5W
3316	4822 051 20108	1Ω 5% 0.1W
3317	4822 051 30103	10kΩ 5% 62mW
3317	4822 051 20108	1Ω 5% 0.1W
3318	4822 051 30472	4.7kΩ 5% 62mW
3319	4822 051 30103	10kΩ 5% 62mW
3319	4822 051 30479	47Ω 5% 62mW
3320	4822 051 30472	4.7kΩ 5% 62mW
3320	2322 704 67503	75kΩ 1%
3321	4822 051 30682	6.8kΩ 5% 62mW
3322	5322 117 13026	4.7kΩ 1% 63mW
3323	5322 117 13026	4.7kΩ 1% 63mW
3324	4822 117 13632	100kΩ 1% 0.62W
3325	4822 051 30682	6.8kΩ 5% 62mW
3326	4822 051 30479	47Ω 5% 62mW
3327	4822 051 30682	6.8kΩ 5% 62mW
3328	4822 051 30223	22kΩ 5% 62mW
3329	4822 051 30223	22kΩ 5% 62mW
3330	4822 116 83868	150Ω 5% 0.5W
3330	4822 051 30223	22kΩ 5% 62mW
3331	4822 053 12109	10Ω 5% 3W
3331	4822 051 30332	3.3kΩ 5% 62mW
3332	4822 051 30332	3.3kΩ 5% 62mW
3333	4822 051 30101	100Ω 5% 62mW
3334	4822 051 30101	100Ω 5% 62mW
3335	4822 051 30101	100Ω 5% 62mW
3336	4822 051 30101	100Ω 5% 62mW
3336	4822 051 30689	68Ω 5% 63mW
3337	4822 051 30101	100Ω 5% 62mW
3338	4822 051 30101	100Ω 5% 62mW
3339	4822 051 30102	1kΩ 5% 62mW
3339	4822 051 30008	Jumper
3340	4822 051 30101	100Ω 5% 62mW
3340	4822 051 30008	Jumper
3342	5322 117 13034	1.5kΩ 1% 63mW
3344	5322 117 13026	4.7kΩ 1% 63mW
3347	4822 117 11152	4.7Ω 5%
3348	4822 117 11152	4.7Ω 5%
3350	4822 116 52251	18kΩ 5% 0.5W
3351	4822 051 30102	1kΩ 5% 62mW
3360	4822 117 13608	4.7Ω 5% 1.6mW
3400	4822 051 30101	100Ω 5% 62mW
3401	4822 051 30101	100Ω 5% 62mW
3402	4822 051 30103	10kΩ 5% 62mW
3405	4822 051 30103	10kΩ 5% 62mW
3418	4822 051 30008	Jumper
3419	4822 051 30103	10kΩ 5% 62mW
3420	4822 051 30103	10kΩ 5% 62mW
3421	4822 051 30103	10kΩ 5% 62mW
3422	4822 051 30105	1M Ω 5% 62mW
3423	4822 051 30472	4.7kΩ 5% 62mW
3423	4822 051 30561	560Ω 5% 62mW
3424	4822 051 30008	Jumper
3500	4822 051 30332	3.3kΩ 5% 62mW
3501	4822 051 30332	3.3kΩ 5% 62mW
3502	4822 051 30223	22kΩ 5% 62mW
3505	4822 051 30103	10kΩ 5% 62mW
3506	4822 051 30472	4.7kΩ 5% 62mW
3508	4822 051 30332	3.3kΩ 5% 62mW
3509	4822 051 30103	10kΩ 5% 62mW
3512	4822 051 30103	10kΩ 5% 62mW
3513	4822 051 30103	10kΩ 5% 62mW
3514	4822 051 30103	10kΩ 5% 62mW
3515	4822 051 30103	10kΩ 5% 62mW
3517	4822 051 30332	3.3kΩ 5% 62mW
3518	4822 051 30332	3.3kΩ 5% 62mW
3519	4822 051 30103	10kΩ 5% 62mW
3520	4822 051 30332	3.3kΩ 5% 62mW
3521	4822 117 13613	2.2Ω 5%
3522	4822 117 13613	2.2Ω 5%
3525	4822 051 30101	100Ω 5% 62mW
3530	2322 704 61303	13kΩ 1%
3531	2322 704 61303	13kΩ 1%
3532	4822 051 30101	100Ω 5% 62mW
3533	5322 117 13042	3.9kΩ 1% 63mW
3534	5322 117 13042	3.9kΩ 1% 63mW
3535	4822 051 30101	100Ω 5% 62mW
3536	4822 051 30101	100Ω 5% 62mW
3537	4822 051 30103	10kΩ 5% 62mW
3583	4822 051 30008	Jumper
3588	4822 051 30332	3.3kΩ 5% 62mW
3589	4822 051 30332	3.3kΩ 5% 62mW
3590	4822 051 30681	680Ω 5% 62mW
3591	4822 051 30152	1.5kΩ 5% 62mW
3592	4822 051 30101	100Ω 5% 62mW
3596	4822 051 30101	100Ω 5% 62mW
3597	4822 051 30101	100Ω 5% 62mW
3606	4822 117 12925	47kΩ 1% 63mW
3607	4822 117 13632	100kΩ 1% 0.62W
3608	4822 117 13632	100kΩ 1% 0.62W
3609	4822 117 13632	100kΩ 1% 0.62W
3610	4822 051 30103	10kΩ 5% 62mW
3611	4822 051 30103	10kΩ 5% 62mW
3615	4822 051 30103	10kΩ 5% 62mW
3618	4822 051 30223	22kΩ 5% 62mW
3619	4822 051 30223	22kΩ 5% 62mW
3620	4822 051 30101	100Ω 5% 62mW
3621	4822 051 30101	100Ω 5% 62mW
3622	4822 051 30101	100Ω 5% 62mW
3623	4822 051 30101	100Ω 5% 62mW
3624	4822 051 30101	100Ω 5% 62mW
3625	4822 051 30101	100Ω 5% 62mW
3629	4822 051 30472	4.7kΩ 5% 62mW
3635	4822 051 30682	6.8kΩ 5% 62mW
3636	4822 051 30682	6.8kΩ 5% 62mW
3637	4822 051 30332	3.3kΩ 5% 62mW
3648	5322 117 13059	560Ω 1% 63mW
3651	5322 117 13059	560Ω 1% 63mW
3654	5322 117 13059	560Ω 1% 63mW
3655	5322 117 13059	560Ω 1% 63mW
3656	5322 117 13059	560Ω 1% 63mW
3657	5322 117 13059	560Ω 1% 63mW
3658	4822 051 30102	1kΩ 5% 62mW
3659	4822 051 30102	1kΩ 5% 62mW
3660	4822 051 30102	1kΩ 5% 62mW
3665	4822 117 12139	22Ω 5% 62mW
3672	4822 051 30479	47Ω 5% 62mW
3686	4822 051 30223	22kΩ 5% 62mW
3687	4822 051 30223	22kΩ 5% 62mW
3688	4822 051 30472	4.7kΩ 5% 62mW
3689	4822 051 30223	22kΩ 5% 62mW
3692	4822 051 30331	330Ω 5% 62mW
3693	4822 051 30331	330Ω 5% 62mW
3694	4822 051 30681	680Ω 5% 62mW
3695	4822 051 30681	680Ω 5% 62mW
3707	4822 051 30472	4.7kΩ 5% 62mW
3711	4822 051 30101	100Ω 5% 62mW

5100	4822 157 70601	100µH
5100	4822 051 30008	Jumper
5101	4822 051 30008	Jumper
5102	4822 051 30008	Jumper
5120	4822 157 11838	0.22µH 10%
5140	4822 157 11838	0.22µH 10%
5141	4822 157 11838	0.22µH 10%
5161	4822 157 10977	4.7µH 10%
5200	4822 157 11139	6.8µH 5%
5200	4822 157 11717	BLM31P500SPT
5300	4822 157 52392	27µH
5300	4822 157 11717	BLM31P500SPT
5301	4822 526 10704	Bead 100mH z
5301	4822 157 11717	BLM31P500SPT
5315	2422 531 02521	Transformer SS25105-02
5331	4822 157 71736	10µH 5%
5333	4822 157 71736	10µH 5%
5337	4822 157 71736	10µH 5%
5400	4822 157 11499	BLM11P600SPT
5402	4822 157 11499	BLM11P600SPT
5403	4822 157 11499	BLM11P600SPT
5501	4822 157 70299	2.2µH NL322522T-2.2RJ
5502	4822 157 70299	2.2µH NL322522T-2.2RJ
5503	4822 051 20008	Jumper (0805)
5504	4822 051 20008	Jumper (0805)
5600	4822 157 71206	BLM21A601SPT
5601	4822 157 11499	BLM11P600SPT
5603	4822 157 71206	BLM21A601SPT
5606	4822 157 70651	12µH NL322522T-120J
5607	4822 157 70651	12µH NL322522T-120J
5608	4822 157 70651	12µH NL322522T-120J
5609	4822 157 11717	BLM31P500SPT
5610	4822 157 11717	BLM31P500SPT
5611	4822 157 11717	BLM31P500SPT
5613	4822 157 11717	BLM31P500SPT
5614	4822 157 11717	BLM31P500SPT
5615	2422 549 43303	Bead 100mH z
5616	2422 549 43303	Bead 100mH z
5617	2422 549 43303	Bead 100mH z
5618	2422 549 43303	Bead 100mH z
5619	2422 549 43303	Bead 100mH z

6120	4822 130 11397	BAS316
6200	4822 130 11397	BAS316
6300	4822 130 42606	BYD33J
6301	9322 128 69685	S1D
6302	9322 128 69685	S1D
6303	9322 128 69685	S1D
6311	4822 130 11397	BAS316
6312	9340 548 67115	PDZ22B
6330	9322 164 42682	EGP20DL-5102
6332	9322 161 76682	SB340L-7024
6334	4822 130 42488	BYD33D
6336	5322 130 31938	BYV27-200
6350	9340 548 61115	PDZ12B
6600	9322 154 46685	RB501V-40

7100	5322 130 42718	BFS20
7101	5322 130 42718	BFS20
7102	9352 637 37518	TZA1033HL
7103	4822 209 17229	BA5938FM
7104	4822 209 30095	LM833D
7105	4822 209 32073	MC34072D
7106	5322 130 42718	BFS20
7109	9322 136 29668	L78M9CDT
7110	9337 331 10215	BST82
7111	5322 130 60159	BC846B
7112	5322 130 60159	BC846B
7113	5322 130 60159	BC846B

7114	5322 130 60159	BC846B
7115	4822 130 60373	BC856B
7116	5322 130 60159	BC846B
7120	9352 703 94118	UDA1334BT/N2
7140	5322 130 60159	BC846B
7142	5322 130 60159	BC846B
7200	5322 130 60159	BC846B
7201	9351 869 80118	74HCT573DB
7201	4822 130 60373	BC856B
7202	5322 130 60159	BC846B
7203	4822 130 60373	BC856B
7207	9352 636 60557	SAA7399HL/M2A
7208	9322 163 27685	NCP301LSN45
7209	4822 209 90927	L78L05ACD
7210	5322 130 60845	BC807-25
7210	5322 130 60159	BC846B
7211	4822 130 42804	BC817-25
7211	4822 130 60373	BC856B
7212	5322 130 60159	BC846B
7280	4822 209 17338	L78L08ACZ
7304	9322 139 85668	BA6665FM
7310	4822 209 15899	CY7C199-15C
7310	4822 130 11155	PDTC114ET
7311	3198 010 44010	PDTA114ET
7311	9352 622 13557	SAA7335HL
7312	4822 130 60373	BC856B
7313	5322 130 60159	BC846B
7315	5322 130 60159	BC846B
7315	9352 639 17112	TEA1523P/N1
7316	9352 500 20118	74LVC08AD
7317	9352 500 20118	74LVC08AD
7340	8238 274 02070	TCET1103G
7341	4822 209 81397	TL431CLPST
7350	9322 163 75685	SI2306DS
7351	4822 130 10255	MMUN2213
7400	9352 499 60118	74LVC00AD
7406	4822 209 16044	PCF8584T
7407	9322 166 67668	MT48LC4M16A2TG-7E
7408	5322 209 11517	PC74HCU04T
7409	9352 115 40118	74LVC245APW
7501	5322 130 60159	BC846B
7503	9322 170 24671	STI5580EVA
7504	2722 171 08709	Crystal 27MHz
7505	9322 156 81668	M24C32-WMN6TNKSA
7506	9965 000 04199	BSN20
7507	9965 000 04199	BSN20
7600	5322 209 71568	PC74HCT14T
7601	9322 142 88668	LF25CDT
7602	9322 142 88668	LF25CDT
7605	4822 209 17398	LD1117DT33
7608	4822 130 60373	BC856B
7609	4822 130 60373	BC856B
7610	5322 130 60159	BC846B
7611	9352 456 80115	74HCT1G125GW
7615	5322 130 60159	BC846B
7617	5322 130 60159	BC846B
7618	5322 130 60159	BC846B
7620	4822 130 60373	BC856B
7621	4822 130 42804	BC817-25

Front Interface [Q]

Various

0157	3139 131 01251	Cable 5p 400mm
0177	3104 311 03011	Cable 2p 340mm
0211	2422 025 16268	2p male
0212	2422 025 16268	2p male
0214	2422 025 06353	5p male
0231	2422 128 02972	Power switch

⊣⊢

2691	4822 124 40248	10µF 20% 63V
2698	5322 121 42386	100nF 5% 63V

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3500	4822 053 21335	3.3M Ω 5% 0.5W
3501	4822 053 21335	3.3M Ω 5% 0.5W
3691	4822 116 52219	330Ω 5% 0.5W
3693	4822 116 83872	220Ω 5% 0.5W

▶⊢

6691	9322 050 99682	LTL-10224WHCR
6692	9322 127 54667	IR receiver TSOP1836UH1

Top Control [T2]

Various

0158	3139 131 01771	Cable 3p 1000mm
0215	2422 025 16601	3p male
1091	4822 276 13775	Switch
1092	4822 276 13775	Switch
1093	4822 276 13775	Switch
1094	4822 276 13775	Switch

-▭-

3091	4822 051 20561	560Ω 5% 0.1W
3092	4822 051 20391	390Ω 5% 0.1W
3093	4822 051 20561	560Ω 5% 0.1W
3094	4822 051 20391	390Ω 5% 0.1W
3095	4822 051 20332	3.3kΩ 5% 0.1W
3096	4822 117 11139	1.5kΩ 1% 0.1W

▶⊢

6091	4822 130 11528	1PS76SB10

Colour television **Chassis**

L01H.1E
AA 02.01

Service
Service
Service

Service Information

(GB) Service Information L01H.1E AA 02.01

Introduction
In this Service Information, all the new schematics and PCB layouts are given for the L01H.1E AA update to the “2002” PCB layout. The change will be introduced from week 236 onwards in production.

Contents
- Spare Parts list.
- Electrical Diagrams and PWB Layouts.

(D) Service Information L01H.1E AA 02.01

Einführung
In dieser Serviceinformation finden Sie alle neuen Schaltbilder und Platinenlayouts für das Chassis
L01H.1EAA mit dem sogenannten “2002” Platinenlayout. Diese Änderungen sind ab Kalenderwoche 236 in die Produktion eingeflossen.

Inhalt
- Ersatzteilliste
- Elektrische Schaltbilder und Platinenlayouts

(F) Information Service L01H.1E AA 02.01

Introduction
Dans cette Information Service, vous trouverez les nouveaux schémas et implantations du L01H.1E AA adapté en "2002". Cette modification sera introduite en production à partir de la semaine 236.

Contents
- Liste des pièces détachées
- Schémas et Iimplantations.

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Spare Parts List

Mono Carrier [A] and CRT Panel [B]

Various

0127	4822 265 11253	Fuse holder
0129	3139 120 10151	NTC holder
0136	4822 492 70788	IC fix
0137	4822 492 70289	IC fix
0138	4822 492 70788	IC fix
0139	3122 121 24785	Spring for bracket
0140	4822 492 70289	IC fix
0141	4822 492 70788	IC fix
0150	3139 131 00761	Cable 2p 560mm
0151	3104 311 02821	Cable 2p 560mm
0152	3104 301 09421	Cable 6p 400mm
0152	3104 311 04431	Cable 6p 480mm
0153	3104 311 04381	Cable 5p 560mm
0159	3104 311 02931	Cable 3p 400mm
0180	3104 311 03312	Cable 6p 680mm
0180	3139 131 01801	Cable 6p 680mm
0186	3104 311 02971	Cable 5p 560mm
0211	4822 265 20723	2p
0211	2422 025 16374	2p male
0212	4822 267 10774	2p male (red)
0214	4822 267 10734	5p
0219	2422 025 15849	6p male
0220	4822 265 30735	5p
0221	4822 267 10966	2p
0222	2422 025 10646	2p male
0224	4822 267 10982	2p
0231	2422 128 02972	Power switch
0235	4822 267 10771	42p female
0235	2422 025 16745	Scart 42p female
0239	2422 025 16382	3p male
0242	3139 131 00941	Cable 3p 560mm
0243	2422 025 04854	6p female
0244	4822 265 30735	5p
0245	2422 025 04854	6p female
0246	4822 267 10734	5p
0254	2422 500 80053	CRT 9p female
0254	2422 500 80076	CRT 9p female
0265	4822 267 10748	3p
0267	2422 025 16382	3p male
0268	4822 267 10735	3p
0278	4822 267 10735	3p
0278	2422 025 16382	3p male
0291	4822 267 10565	4p
1000	3139 147 17401	Tuner UR1316R/A I -3
1002	4822 242 81436	OFWK3953M
1004	2422 549 44341	Saw filter 38.9MHz OFWK9656M
1200	4822 242 81712	TPWA04B
1400	2422 132 07543	Relay 5A 12V LKS1AF-H10
1500	2422 086 10914	Fuse 4A 250V
1515	2422 132 07467	Relay 1p 12V 5A LKS1AF
1660	2422 543 01203	Crystal 12.00MHz
1831	4822 242 10769	18.432MHz

⊣⊢

2001	5322 122 32658	22pF 5% 50V
2002	5322 122 32658	22pF 5% 50V
2003	4822 122 33177	10nF 20% 50V
2004	4822 126 13751	47nF 10% 63V
2005	4822 124 40248	10μF 20% 63V
2006	4822 124 80791	470μF 20% 16V
2007	4822 126 14585	100nF 10% 50V
2008	4822 124 40207	100μF 20% 25V
2009	5322 122 32654	22nF 10% 63V
2010	5322 126 10511	1nF 5% 50V
2101	9965 000 10115	390pF 50V 10%
2102	9965 000 10115	390pF 50V 10%
2103	2020 552 96305	4.7μF 20-80% 10V
2104	9965 000 10115	390pF 50V 10%
2105	9965 000 10115	390pF 50V 10%
2106	2020 552 96305	4.7μF 20-80% 10V
2107	9965 000 10115	390pF 50V 10%
2108	9965 000 10115	390pF 50V 10%
2109	2020 552 96305	4.7μF 20-80% 10V
2110	9965 000 10115	390pF 50V 10%
2111	9965 000 10115	390pF 50V 10%
2112	2020 552 96305	4.7μF 20-80% 10V
2113	5322 122 32658	22pF 5% 50V
2114	5322 122 32658	22pF 5% 50V
2115	5322 122 32658	22pF 5% 50V
2116	5322 122 32658	22pF 5% 50V
2117	5322 122 32658	22pF 5% 50V
2118	5322 122 32658	22pF 5% 50V
2120	5322 122 32658	22pF 5% 50V
2131	9965 000 10115	390pF 50V 10%
2132	9965 000 10115	390pF 50V 10%
2133	2020 552 96305	4.7μF 20-80% 10V
2134	9965 000 10115	390pF 50V 10%
2135	9965 000 10115	390pF 50V 10%
2136	2020 552 96305	4.7μF 20-80% 10V
2137	9965 000 10115	390pF 50V 10%
2138	9965 000 10115	390pF 50V 10%
2139	2020 552 96305	4.7μF 20-80% 10V
2140	9965 000 10115	390pF 50V 10%
2141	9965 000 10115	390pF 50V 10%
2142	2020 552 96305	4.7μF 20-80% 10V
2143	5322 122 31863	330pF 5% 63V
2144	5322 122 31863	330pF 5% 63V
2145	5322 122 32658	22pF 5% 50V
2147	5322 122 32658	22pF 5% 50V
2151	5322 122 31863	330pF 5% 63V
2152	2020 552 96305	4.7μF 20-80% 10V
2153	5322 122 31863	330pF 5% 63V
2154	2020 552 96305	4.7μF 20-80% 10V
2161	4822 124 12392	47μF 20% 16V
2171	4822 126 13682	100pF 5% 1kV
2172	4822 126 12263	220pF 10% 1kV
2174	4822 122 31177	470pF 10% 500V
2175	2020 021 91577	470μF 20% 16V
2184	2020 552 96305	4.7μF 20-80% 10V
2201	4822 126 14585	100nF 10% 50V
2202	4822 126 14585	100nF 10% 50V
2203	4822 126 14585	100nF 10% 50V
2204	4822 126 14585	100nF 10% 50V
2205	4822 126 14076	220nF 25V
2206	4822 126 13693	56pF 1% 63V
2207	5322 126 10184	820pF 5% 50V 3
2208	4822 126 14585	100nF 10% 50V
2209	4822 124 40248	10μF 20% 63V
2210	4822 126 14043	1μF 20-80% 16V
2211	4822 126 13482	470nF 80/20% 16V
2213	5322 122 32654	22nF 10% 63V
2214	5322 122 32654	22nF 10% 63V
2215	5322 122 32654	22nF 10% 63V
2216	4822 124 81144	1000μF 16V
2216	2020 012 93728	2200μF 20% 10V
2217	5322 122 32654	22nF 10% 63V
2219	4822 126 14076	220nF 25V
2220	4822 121 51252	470nF 5% 63V
2221	5322 122 32654	22nF 10% 63V
2230	4822 124 40769	4.7μF 20% 100V
2234	4822 126 14585	100nF 10% 50V
2238	5322 126 10511	1nF 5% 50V
2239	5322 126 10511	1nF 5% 50V
2240	5322 126 10511	1nF 5% 50V
2241	4822 126 13344	1.5nF 5% 63V
2242	4822 126 14043	1μF 20-80% 16V
2243	4822 122 33177	10nF 20% 50V
2244	5322 121 42386	100nF 5% 63V
2245	4822 126 14076	220nF 25V
2245	4822 126 14107	330nF 20-80% 25V
2247	4822 124 81144	1000μF 16V
2247	2020 012 93728	2200μF 20% 10V
2248	5322 122 32654	22nF 10% 63V
2249	5322 122 32654	22nF 10% 63V
2250	4822 124 22652	2.2μF 20% 50V
2252	5322 126 10511	1nF 5% 50V
2253	5322 126 10511	1nF 5% 50V
2254	4822 051 20008	Jumper
2330	4822 121 51473	470nF 20% 63V
2340	4822 124 11565	10μF 20% 250V
2341	4822 126 13599	3.3nF 10% 500V
2342	5322 116 80853	560pF 5% 63V
2343	4822 126 13451	2.2nF 10% 2kV
2343	4822 126 12278	3300pF10% 2kV
2344	4822 051 20008	Jumper
2345	4822 122 31175	1nF 10% 500V
2346	4822 126 13435	1.2nF 10% 2kV
2346	4822 126 14237	470pF 10% 2kV
2360	4822 124 40764	22μF 100V
2361	4822 124 40207	100μF 20% 25V
2365	4822 121 40516	22nF 10% 250V
2366	4822 121 40334	100nF 10% 100V
2367	5322 122 33861	120pF10% 50V
2367	5322 122 33538	150pF 2% 63V
2367	4822 126 10326	180pF 5% 63V
2368	5322 122 32654	22nF 10% 63V
2373	4822 126 13693	56pF 1% 63V
2375	5322 122 31863	330pF 5% 63V
2376	4822 126 14585	100nF 10% 50V
2377	4822 126 14585	100nF 10% 50V
2401	4822 124 12438	2.2μF 20% 100V
2401	5322 124 41379	2.2μF 20% 50V
2402	4822 122 31177	470pF 10% 500V
2404	4822 124 41751	47μF 20% 50V
2405	4822 124 40196	220μF 20% 16V
2405	4822 124 80875	220μF 20% 25V
2420	4822 126 14043	1μF 20-80% 16V
2421	5322 122 32268	470pF 5% 63V
2441	4822 124 21913	1μF 20% 63V
2443	4822 126 13751	47nF 10% 63V
2444	4822 124 21913	1μF 20% 63V
2450	4822 124 11575	47μF 20% 160V
2451	4822 121 51305	15nF 10% 50V
2451	4822 121 41856	22nF 5% 250V
2452	4822 126 10326	180pF 5% 63V
2454	2222 479 90133	68nF 5% 250V
2455	4822 124 40433	47μF 20% 25V
2457	4822 121 42365	330nF 5% 250V
2457	4822 121 10781	470nF 5% 250V
2458	4822 124 12438	2.2μF 20% 100V
2459	4822 126 13185	680pF10% 500V
2460	5322 122 32531	100pF 5% 50V
2463	4822 126 14237	470pF 10% 2kV
2463	4822 126 14138	680pF 10% 2kV
2464	4822 121 10739	2.2μF 5% 160V
2465	4822 121 70618	12nF 5% 1600V
2465	4822 121 70637	8.2nF 5% 1600V
2466	4822 121 40483	10nF 10% 400V
2466	2222 347 90219	15nF 10% 400V
2467	2222 375 90424	9.1nF 5% 1kV
2468	5322 121 42532	18nF 10% 400V
2468	2222 375 90424	9.1nF 5% 1kV
2469	4822 126 14096	560nF 5% 250V
2471	5322 121 42386	100nF 5% 63V
2472	4822 121 41854	150nF 5% 63V
2473	5322 121 42386	100nF 5% 63V
2474	4822 122 33127	2.2nF 10% 63V
2475	4822 122 33127	2.2nF 10% 63V
2476	5322 126 10223	4.7nF 10% 63V
2480	5322 121 10472	47μF
2481	4822 122 31177	470pF 10% 500V
2482	4822 121 51408	33nF 10% 250V
2482	4822 121 40482	68nF 10% 250V
2485	4822 124 12265	4.7μF 20% 250V
2486	2020 021 91577	470μF 20% 16V
2487	4822 124 80604	47μF 20% 50V
2488	4822 124 81145	16V 20% 1000μF
2489	2020 021 91577	470μF 20% 16V
2490	4822 124 12438	2.2μF 20% 100V
2491	4822 122 31175	1nF 10% 500V
2493	2222 347 90219	15nF 10% 400V
2500	4822 126 13589	470nF 275V
2501	4822 126 14153	2.2nF 10% 1kV
2502	4822 126 14153	2.2nF 10% 1kV
2503	4822 124 12415	220μF 20% 400V
2505	4822 126 14153	2.2nF 10% 1kV
2505	4822 126 13599	3.3nF 10% 500V
2506	4822 121 10798	33nF 5% 400V
2507	5322 122 34099	470pF 10% 63V
2508	4822 122 50116	470pF 10% 1kV
2509	4822 121 10711	100nF 20% 275V
2515	4822 126 14049	1.5nF 20% 250V
2516	4822 126 14208	220pF 20% 250V
2516	4822 126 13867	330P 20% 250V
2520	4822 126 14585	100nF 10% 50V
2520	4822 122 33177	10nF 20% 50V
2521	4822 124 81151	22μF 50V
2522	4822 126 14585	100nF 10% 50V
2523	4822 126 13862	1.5nF 10% 2kV
2525	5322 122 34099	470pF 10% 63V
2526	4822 126 13482	470nF 80/20% 16V
2527	4822 122 33127	2.2nF 10% 63V
2528	5322 122 31647	1nF 10% 63V
2540	4822 122 33177	10nF 20% 50V
2541	4822 122 33177	10nF 20% 50V
2560	4822 126 14152	680pF 10% 1kV
2561	2020 021 91496	100μF 20% 160V
2562	5322 122 32331	1nF 10% 100V
2563	5322 121 42386	100nF 5% 63V
2564	4822 124 12417	2200μF 20% 25V
2564	2020 021 91374	ELECTROLYTICPM25V.S220
2567	4822 124 40433	47μF 20% 25V
2568	4822 124 21913	1μF 20% 63V
2580	4822 124 81286	47μF 20% 16V
2581	4822 124 81151	22μF 50V
2601	4822 126 14076	220nF 25V
2602	5322 122 32531	100pF 5% 50V
2604	4822 124 40248	10μF 20% 63V

2606	5322 122 31647	1nF 10% 63V
2607	2238 861 18339	33P 1% 50V
2608	4822 126 14043	1µF 20-80% 16V
2609	2238 861 18339	33P 1% 50V
2611	4822 126 14043	1µF 20-80% 16V
2612	4822 126 13694	68pF 1% 63V
2613	4822 126 13694	68pF 1% 63V
2615	5322 122 31647	1nF 10% 63V
2618	4822 126 14043	1µF 20-80% 16V
2619	4822 126 14043	1µF 20-80% 16V
2691	4822 124 40248	10µF 20% 63V
2801	4822 124 40207	100µF 20% 25V
2801	4822 124 81151	22µF 50V
2802	4822 126 14076	220nF 25V
2802	2020 552 96305	4.7µF 20-80% 10V
2803	2020 552 96305	4.7µF 20-80% 10V
2804	2020 552 96305	4.7µF 20-80% 10V
2805	2020 552 96305	4.7µF 20-80% 10V
2811	2020 552 96305	4.7µF 20-80% 10V
2823	4822 124 40207	100µF 20% 25V
2824	2020 552 96305	4.7µF 20-80% 10V
2831	5322 122 32447	1pF 5% 63V
2832	5322 122 32447	1pF 5% 63V
2833	4822 126 13692	47pF 1% 63V
2834	5322 122 32268	470pF 5% 63V
2835	4822 122 33575	220pF 5% 63V
2836	4822 126 13344	1.5nF 5% 63V
2837	4822 124 40769	4.7µF 20% 100V
2840	4822 126 14585	100nF 10% 50V
2841	4822 124 40248	10µF 20% 63V
2842	4822 126 14585	100nF 10% 50V
2843	4822 124 40248	10µF 20% 63V
2844	4822 124 40248	10µF 20% 63V
2845	4822 126 14585	100nF 10% 50V
2846	4822 124 40207	100µF 20% 25V
2849	5322 126 10511	1nF 5% 50V
2850	5322 126 10511	1nF 5% 50V
2851	2020 552 96305	4.7µF 20-80% 10V
2851	4822 051 20008	Jumper
2852	5322 126 10511	1nF 5% 50V
2853	2020 552 96305	4.7µF 20-80% 10V
2853	4822 051 20008	Jumper
2854	5322 126 10511	1nF 5% 50V
2855	4822 122 30045	27pF 2% 100V
2856	4822 126 13486	15pF 2% 63V
2857	5322 122 33538	150pF 2% 63V
2858	5322 126 10511	1nF 5% 50V
2859	5322 126 10511	1nF 5% 50V
2860	4822 126 13693	56pF 1% 63V
2862	2020 552 96305	4.7µF 20-80% 10V
2887	4822 122 33177	10nF 20% 50V
2894	4822 122 33575	220pF 5% 63V
2895	5322 116 80853	560pF 5% 63V
2897	4822 122 33172	390pF 5% 50V
2898	4822 122 33177	10nF 20% 50V
2902	4822 124 81144	1000µF 16V
2902	4822 124 80061	1000µF 20% 25V
2903	4822 124 21913	1µF 20% 63V
2904	4822 126 13482	470nF 80/20% 16V
2905	5322 122 31647	1nF 10% 63V
2905	5322 116 80853	560pF 5% 63V
2906	4822 126 13482	470nF 80/20% 16V
2907	5322 122 31647	1nF 10% 63V
2907	5322 116 80853	560pF 5% 63V
2908	4822 124 40248	10µF 20% 63V
2910	5322 122 31647	1nF 10% 63V
2910	4822 122 33891	3.3nF 10% 63V
2911	5322 122 31647	1nF 10% 63V
2911	4822 122 33891	3.3nF 10% 63V
2950	5322 122 31863	330pF 5% 63V

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3000	4822 116 52175	100Ω 5% 0.5W
3001	4822 116 52175	100Ω 5% 0.5W
3002	4822 117 10833	10kΩ 1% 0.1W
3002	4822 051 20008	Jumper
3003	4822 117 11139	1.5kΩ 1% 0.1W
3005	4822 116 52175	100Ω 5% 0.5W
3006	4822 117 11449	2.2kΩ 5% 0.1W
3007	4822 117 11507	6.8kΩ 1% 0.1W
3008	4822 117 11449	2.2kΩ 5% 0.1W
3010	4822 117 13577	330Ω 1% 1.25W
3101	4822 116 83868	150Ω 5% 0.5W
3102	3198 021 52240	220kΩ 5%
3103	4822 116 83868	150Ω 5% 0.5W
3104	4822 117 10834	47kΩ 1% 0.1W
3105	4822 116 83868	150Ω 5% 0.5W
3106	3198 021 52240	220kΩ 5%
3107	4822 116 83868	150Ω 5% 0.5W
3108	4822 117 10834	47kΩ 1% 0.1W
3109	4822 116 52201	75Ω 5% 0.5W
3110	4822 116 52175	100Ω 5% 0.5W
3111	4822 116 52264	27kΩ 5% 0.5W
3112	4822 117 11507	6.8kΩ 1% 0.1W
3113	4822 116 52201	75Ω 5% 0.5W
3114	4822 116 52175	100Ω 5% 0.5W
3115	4822 116 52201	75Ω 5% 0.5W
3116	4822 116 52175	100Ω 5% 0.5W
3117	4822 116 52201	75Ω 5% 0.5W
3118	4822 116 52175	100Ω 5% 0.5W
3119	4822 116 52199	68Ω 5% 0.5W
3120	4822 051 10102	1kΩ 2% 0.25W
3131	4822 116 83868	150Ω 5% 0.5W
3132	3198 021 52240	220kΩ 5%
3133	4822 116 83868	150Ω 5% 0.5W
3134	4822 117 10834	47kΩ 1% 0.1W
3135	4822 116 83868	150Ω 5% 0.5W
3136	3198 021 52240	220kΩ 5%
3137	4822 116 83868	150Ω 5% 0.5W
3138	4822 117 10834	47kΩ 1% 0.1W
3139	4822 116 52264	27kΩ 5% 0.5W
3140	4822 117 11507	6.8kΩ 1% 0.1W
3141	4822 116 52201	75Ω 5% 0.5W
3142	4822 116 52175	100Ω 5% 0.5W
3143	4822 116 52199	68Ω 5% 0.5W
3144	4822 051 10102	1kΩ 2% 0.25W
3151	4822 116 83868	150Ω 5% 0.5W
3152	3198 021 52240	220kΩ 5%
3153	4822 116 83868	150Ω 5% 0.5W
3154	3198 021 52240	220kΩ 5%
3155	4822 116 52195	47Ω 5% 0.5W
3171	4822 050 11204	120kΩ 1% 0.4W
3172	4822 116 83961	6.8kΩ 5%
3173	4822 116 52297	68kΩ 5% 0.5W
3174	4822 116 52297	68kΩ 5% 0.5W
3176	4822 052 11108	1Ω 5% 0.5W
3200	4822 116 83881	390Ω 5% 0.5W
3201	4822 116 52175	100Ω 5% 0.5W
3202	4822 116 52175	100Ω 5% 0.5W
3203	4822 116 52175	100Ω 5% 0.5W
3204	4822 116 52257	22kΩ 5% 0.5W
3206	4822 051 20124	120kΩ 5% 0.1W
3206	4822 051 20154	150kΩ 5% 0.1W
3206	3198 021 52240	220kΩ 5%
3207	4822 050 11002	1kΩ 1% 0.4W
3208	4822 117 11503	220Ω 1% 0.1W
3209	4822 117 12521	68Ω 1% 0.1W
3212	4822 051 20471	470Ω 5% 0.1W
3213	4822 051 20561	560Ω 5% 0.1W
3214	4822 116 52175	100Ω 5% 0.5W
3217	4822 051 20334	330kΩ 5% 0.1W
3218	4822 117 11149	82kΩ 1% 0.1W
3219	4822 117 11449	2kΩ2 5% 0.1W
3223	4822 117 11373	100Ω 1%
3226	4822 051 20561	560Ω 5% 0.1W
3229	4822 117 11454	820Ω 1% 0.1W
3230	4822 117 11504	270Ω 1% 0.1W
3231	4822 051 20561	560Ω 5% 0.1W
3233	4822 117 11454	820Ω 1% 0.1W
3235	4822 116 52175	100Ω 5% 0.5W
3236	4822 051 20154	150kΩ 5% 0.1W
3237	4822 051 20122	1kΩ20 5% 0.1W
3238	4822 051 20561	560Ω 5% 0.1W
3239	4822 117 11504	270Ω 1% 0.1W
3240	4822 117 10837	100kΩ 1% 0.1W
3241	4822 051 20223	22kΩ 5% 0.1W
3242	4822 117 11383	12kΩ 1% 0.1W
3244	4822 116 52231	820Ω 5% 0.5W
3245	4822 117 12708	39kΩ 1% 0.1W
3245	4822 051 20393	39kΩ 5% 0.1W
3246	4822 117 10833	10kΩ 1% 0.1W
3247	2120 108 92641	180kΩ 1%
3247	4822 051 20564	560kΩ 5% 0.1W
3248	4822 051 20333	33kΩ 5% 0.1W
3249	4822 116 52231	820Ω 5% 0.5W
3250	4822 050 11002	1kΩ 1% 0.4W
3250	4822 116 52303	8.2kΩ 5% 0.5W
3251	4822 116 52175	100Ω 5% 0.5W
3256	4822 051 10102	1kΩ 2% 0.25W
3257	4822 051 20106	10M Ω 5% 0.1W
3257	4822 051 20105	1M Ω 5% 0.1W
3258	4822 117 10837	100kΩ 1% 0.1W
3258	2120 108 92641	180kΩ 1%
3258	4822 051 20274	270kΩ 5% 0.1W
3259	4822 051 20475	4.7M Ω 5% 0.1W
3259	4822 051 20474	470kΩ 5% 0.1W
3270	4822 051 20008	Jumper
3331	4822 116 52175	100Ω 5% 0.5W
3332	3198 013 01020	1kΩ 20% 0.5W
3333	4822 116 52175	100Ω 5% 0.5W
3334	3198 013 01020	1kΩ 20% 0.5W
3335	4822 116 52175	100Ω 5% 0.5W
3336	3198 013 01020	1kΩ 20% 0.5W
3340	4822 052 11109	10Ω 5% 0.5W
3341	4822 052 10108	1Ω 5% 0.33W
3342	4822 052 10108	1Ω 5% 0.33W
3343	3198 013 01520	1.5kΩ 20% 0.5W
3344	4822 116 52186	22Ω 5% 0.5W
3344	4822 116 52191	33Ω 5% 0.5W
3345	4822 117 13016	1mA/50V max 115V
3346	4822 116 52186	22Ω 5% 0.5W
3346	4822 116 52191	33Ω 5% 0.5W
3347	4822 051 10102	1kΩ 2% 0.25W
3348	4822 051 10102	1kΩ 2% 0.25W
3350	4822 051 10102	1kΩ 2% 0.25W
3351	4822 051 10102	1kΩ 2% 0.25W
3353	4822 051 10102	1kΩ 2% 0.25W
3354	4822 051 10102	1kΩ 2% 0.25W
3360	4822 117 13424	8.2kΩ 5% 5W
3362	4822 052 10109	10Ω 5% 0.33W
3363	4822 116 52231	820Ω 5% 0.5W
3364	4822 116 80176	1Ω 5% 0.5W
3364	4822 116 81039	1.8Ω 5% 0.5W
3368	4822 117 12955	2.7kΩ 1% 0.1W
3369	4822 117 10833	10kΩ 1% 0.1W
3370	4822 117 11503	220Ω 1% 0.1W
3371	4822 051 20472	4.7kΩ 5% 0.1W
3373	4822 117 11503	220Ω 1% 0.1W
3374	4822 116 52291	56kΩ 5% 0.5W
3375	4822 116 83868	150Ω 5% 0.5W
3375	4822 116 83872	220Ω 5% 0.5W
3376	4822 051 20008	Jumper
3377	4822 050 24708	4.7Ω 1% 0.6W
3378	4822 117 11148	56kΩ 1% 0.1W
3379	4822 051 20472	4.7kΩ 5% 0.1W
3382	4822 117 11139	1.5kΩ 1% 0.1W
3383	4822 051 20471	470Ω 5% 0.1W
3384	4822 117 11454	820Ω 1% 0.1W
3385	4822 116 80176	1Ω 5% 0.5W
3385	4822 116 81039	1.8Ω 5% 0.5W
3386	4822 051 20472	4.7kΩ 5% 0.1W
3387	4822 051 20471	470Ω 5% 0.1W
3390	4822 051 20109	10Ω 5% 0.1W
3391	4822 051 20109	10Ω 5% 0.1W
3392	4822 117 11373	100Ω 1%
3392	4822 117 11503	220Ω 1% 0.1W
3393	4822 051 20472	4.7kΩ 5% 0.1W
3400	4822 116 52219	330Ω 5% 0.5W
3401	4822 116 83874	220kΩ 5% 0.5W
3401	4822 116 52257	22kΩ 5% 0.5W
3401	4822 050 23303	33kΩ 1% 0.6W
3403	4822 116 52234	100kΩ 5% 0.5W
3403	4822 116 52297	68kΩ 5% 0.5W
3403	4822 116 52304	82kΩ 5% 0.5W
3404	4822 050 11002	1kΩ 1% 0.4W
3405	4822 050 24708	4.7Ω 1% 0.6W
3406	4822 050 24708	4.7Ω 1% 0.6W
3407	4822 050 24708	4.7Ω 1% 0.6W
3408	4822 116 52175	100Ω 5% 0.5W
3408	4822 050 21003	10kΩ 1% 0.6W
3410	4822 050 21003	10kΩ 1% 0.6W
3411	4822 052 10478	4.7Ω 5% 0.33W
3441	4822 117 11373	100Ω 1%
3442	4822 051 20008	Jumper
3443	4822 051 20105	1M Ω 5% 0.1W
3445	4822 116 52244	15kΩ 5% 0.5W
3446	4822 116 52289	5.6kΩ 5% 0.5W
3447	4822 116 52213	180Ω 5% 0.5W
3448	4822 116 52231	820Ω 5% 0.5W
3449	4822 116 52199	68Ω 5% 0.5W
3450	4822 116 52191	33Ω 5% 0.5W
3451	4822 052 10109	10Ω 5% 0.33W
3452	4822 050 24703	47kΩ 1% 0.6W
3453	4822 050 11002	1kΩ 1% 0.4W
3454	4822 050 21503	15kΩ 1% 0.6W
3455	4822 053 11688	6.8Ω 5% 2W
3456	4822 051 20008	Jumper
3457	4822 051 20008	Jumper
3458	4822 050 11002	1kΩ 1% 0.4W
3459	4822 053 11153	15kΩ 5% 2W
3460	4822 116 52276	3.9kΩ 5% 0.5W
3463	4822 116 52191	33Ω 5% 0.5W
3465	2312 915 12203	22kΩ 1%
3465	4822 050 22703	27kΩ 1% 0.6W
3465	4822 050 25603	56kΩ 1% 0.6W
3468	4822 116 52213	180Ω 5% 0.5W
3469	4822 116 52269	3.3kΩ 5% 0.5W
3470	2120 108 92641	180kΩ 1%
3470	4822 051 20274	270kΩ 5% 0.1W
3470	4822 051 20334	330kΩ 5% 0.1W
3470	4822 051 20474	470kΩ 5% 0.1W
3471	4822 050 22202	2.2kΩ 1% 0.6W
3471	4822 050 23308	3.3Ω 1% 0.6W
3471	4822 050 23908	3.9Ω 1% 0.6W
3471	4822 050 25608	5.6Ω 1% 0.6W
3472	4822 050 23308	3.3Ω 1% 0.6W
3472	4822 050 25608	5.6Ω 1% 0.6W
3473	4822 050 23308	3.3Ω 1% 0.6W
3473	4822 050 23908	3.9Ω 1% 0.6W
3473	4822 050 25608	5.6Ω 1% 0.6W

3474	4822 050 22202	2.2kΩ 1% 0.6W
3475	4822 050 22202	2.2kΩ 1% 0.6W
3477	4822 116 83868	150Ω 5% 0.5W
3478	4822 116 83868	150Ω 5% 0.5W
3479	4822 117 12955	2.7kΩ 1% 0.1W
3480	4822 116 80676	1.5Ω 5% 0.5W
3481	4822 050 21503	15kΩ 1% 0.6W
3481	2312 915 12203	22kΩ 1%
3481	4822 050 22703	27kΩ 1% 0.6W
3482	4822 050 23902	3.9kΩ 1% 0.6W
3482	4822 050 23901	390Ω 1% 0.6W
3482	2312 915 15602	5kΩ6 1%
3484	4822 116 52276	3.9kΩ 5% 0.5W
3486	4822 053 12229	22Ω 5% 3W
3486	4822 053 12339	33Ω 5% 3W
3488	4822 052 11478	4.7Ω 5% 0.5W
3489	4822 116 52276	3.9kΩ 5% 0.5W
3490	4822 116 52303	8.2kΩ 5% 0.5W
3491	4822 117 10833	10kΩ 1% 0.1W
3491	4822 051 20332	3.3kΩ 5% 0.1W
3492	4822 051 10102	1kΩ 2% 0.25W
3492	4822 117 13577	330Ω 1% 1.25W
3493	4822 052 10688	6.8Ω 5% 0.33W
3494	4822 052 11478	4.7Ω 5% 0.5W
3495	4822 051 20223	22kΩ 5% 0.1W
3496	4822 117 10837	100kΩ 1% 0.1W
3497	4822 117 10837	100kΩ 1% 0.1W
3498	4822 117 11383	12kΩ 1% 0.1W
3500	4822 053 21335	3.3M Ω 5% 0.5W
3501	4822 053 21335	3.3M Ω 5% 0.5W
3504	4822 116 10105	PTC 9Ω 220V
3506	4822 053 21155	1.5Ω 5% 0.5W
3507	4822 252 11215	Spark gap
3508	4822 116 83872	220Ω 5% 0.5W
3509	3198 013 04710	470Ω 20% 0.5W
3510	4822 117 12765	4.7Ω 20% 3W
3519	4822 116 83876	270Ω 5% 0.5W
3520	4822 051 20122	1.2kΩ 5% 0.1W
3521	4822 116 52186	22Ω 5% 0.5W
3521	4822 050 24708	4.7Ω 1% 0.6W
3522	2322 734 63004	300kΩ 1%
3522	4822 051 20334	330kΩ 5% 0.1W
3522	4822 051 20394	390kΩ 5% 0.1W
3523	4822 052 10479	47Ω 5% 0.33W
3524	4822 117 11148	56kΩ 1% 0.1W
3525	4822 051 10102	1kΩ 2% 0.25W
3526	3198 012 11570	0.15Ω 5% 1W
3526	4822 117 11744	0.22Ω 5% 1W
3527	4822 117 11744	0.22Ω 5% 1W
3528	4822 051 20109	10Ω 5% 0.1W
3528	4822 051 20008	Jumper
3529	4822 117 10834	47kΩ 1% 0.1W
3530	4822 117 10833	10kΩ 1% 0.1W
3531	4822 051 20472	4.7kΩ 5% 0.1W
3532	4822 052 10222	2.2kΩ 5% 0.33W
3541	4822 051 20471	470Ω 5% 0.1W
3542	4822 117 11139	1.5kΩ 1% 0.1W
3543	4822 050 28203	82kΩ 1% 0.6W
3544	2120 108 92624	4.7kΩ1%
3545	4822 051 20274	270kΩ 5% 0.1W
3545	4822 051 20393	39kΩ 5% 0.1W
3548	4822 116 83933	15kΩ 1% 0.1W
3552	4822 051 20472	4.7kΩ 5% 0.1W
3557	4822 051 10102	1kΩ 2% 0.25W
3557	4822 117 11139	1.5kΩ 1% 0.1W
3561	4822 116 52213	180Ω 5% 0.5W
3561	4822 116 83872	220Ω 5% 0.5W
3562	4822 117 11383	12kΩ 1% 0.1W
3562	4822 116 83933	15kΩ 1% 0.1W
3562	4822 051 20822	8.2kΩ 5% 0.1W
3563	4822 051 20472	4.7kΩ 5% 0.1W
3563	4822 051 20822	8.2kΩ 5% 0.1W
3564	2120 106 90565	0.1Ω 5%
3565	4822 053 10221	220Ω 5% 1W
3565	4822 053 10331	330Ω 5% 1W
3566	4822 117 11449	2kΩ2 5% 0.1W
3569	4822 051 20562	5.6kΩ 5% 0.1W
3580	4822 117 10834	47kΩ 1% 0.1W
3594	4822 117 13577	330Ω 1% 1.25W
3595	3198 021 52240	220kΩ 5%
3596	3198 021 52240	220kΩ 5%
3603	4822 116 52175	100Ω 5% 0.5W
3604	4822 116 52175	100Ω 5% 0.5W
3605	4822 051 20472	4.7kΩ 5% 0.1W
3606	4822 116 52256	2kΩ2 5% 0.5W
3607	4822 116 52256	2kΩ2 5% 0.5W
3608	4822 116 52175	100Ω 5% 0.5W
3609	4822 050 21003	10kΩ 1% 0.6W
3610	4822 116 52303	8.2kΩ 5% 0.5W
3611	4822 117 11373	100Ω 1%
3612	4822 116 52303	8.2kΩ 5% 0.5W
3614	4822 116 52283	4.7kΩ 5% 0.5W
3615	4822 050 21003	10kΩ 1% 0.6W
3617	4822 116 52283	4.7kΩ 5% 0.5W
3618	4822 050 21003	10kΩ 1% 0.6W
3618	4822 116 83961	6.8kΩ 5%
3619	4822 116 52303	8.2kΩ 5% 0.5W
3622	4822 117 11373	100Ω 1%
3623	4822 051 20472	4.7kΩ 5% 0.1W
3624	4822 116 52175	100Ω 5% 0.5W
3625	4822 116 52175	100Ω 5% 0.5W
3626	4822 051 20472	4.7kΩ 5% 0.1W
3627	4822 051 20472	4.7kΩ 5% 0.1W
3628	4822 117 10833	10kΩ 1% 0.1W
3630	4822 117 11449	2kΩ2 5% 0.1W
3632	4822 051 20008	Jumper
3634	4822 116 52175	100Ω 5% 0.5W
3635	4822 116 52175	100Ω 5% 0.5W
3636	4822 117 11373	100Ω 1%
3638	4822 117 11927	75Ω 1% 0.1W
3640	4822 116 52175	100Ω 5% 0.5W
3691	4822 117 13577	330Ω 1% 1.25W
3692	4822 051 10102	1kΩ 2% 0.25W
3693	4822 117 11503	220Ω 1% 0.1W
3694	4822 051 20472	4.7kΩ 5% 0.1W
3801	4822 116 83872	220Ω 5% 0.5W
3802	4822 050 11002	1kΩ 1% 0.4W
3802	4822 116 83872	220Ω 5% 0.5W
3803	4822 117 10837	100kΩ 1% 0.1W
3803	4822 051 20124	120kΩ 5% 0.1W
3804	3198 021 52240	220kΩ 5%
3804	4822 117 11149	82kΩ 1% 0.1W
3805	4822 051 10102	1kΩ 2% 0.25W
3806	4822 117 10837	100kΩ 1% 0.1W
3806	4822 051 20124	120kΩ 5% 0.1W
3807	3198 021 52240	220kΩ 5%
3807	4822 117 11149	82kΩ 1% 0.1W
3808	4822 050 11002	1kΩ 1% 0.4W
3809	4822 117 11927	75Ω 1% 0.1W
3810	4822 117 11927	75Ω 1% 0.1W
3811	4822 051 20471	470Ω 5% 0.1W
3812	4822 051 20564	560kΩ 5% 0.1W
3813	4822 117 10837	100kΩ 1% 0.1W
3814	4822 117 10837	100kΩ 1% 0.1W
3815	4822 117 11503	220Ω 1% 0.1W
3831	4822 117 10834	47kΩ 1% 0.1W
3832	4822 116 52175	100Ω 5% 0.5W
3833	4822 116 52175	100Ω 5% 0.5W
3837	4822 117 11373	100Ω 1%
3839	4822 117 11373	100Ω 1%
3840	4822 051 20472	4.7kΩ 5% 0.1W
3841	4822 051 20822	8.2kΩ 5% 0.1W
3842	4822 051 10102	1kΩ 2% 0.25W
3844	4822 117 11373	100Ω 1%
3845	4822 117 11373	100Ω 1%
3849	4822 051 20471	470Ω 5% 0.1W
3861	4822 117 10833	10kΩ 1% 0.1W
3901	4822 051 10102	1kΩ 2% 0.25W
3901	4822 117 11507	6.8kΩ 1% 0.1W
3902	4822 051 20332	3.3kΩ 5% 0.1W
3903	4822 051 20332	3.3kΩ 5% 0.1W
3903	4822 117 11149	82kΩ 1% 0.1W
3904	4822 117 10833	10kΩ 1% 0.1W
3905	4822 051 20332	3.3kΩ 5% 0.1W
3905	4822 117 11149	82kΩ 1% 0.1W
3906	4822 117 10833	10kΩ 1% 0.1W
3907	4822 117 11507	6.8kΩ 1% 0.1W
3909	4822 051 20273	27kΩ 5% 0.1W
3910	4822 051 20273	27kΩ 5% 0.1W
3912	4822 116 52231	820Ω 5% 0.5W
4xxx	4822 051 10008	0Ω 5% 0.25W (1206)
4xxx	4822 051 20008	0Ω 5% 0.25W (0805)

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5001	4822 157 51216	5.6µH
5002	2422 535 94639	10µH 20%
5003	4822 157 11866	1.8µH 10%
5180	4822 157 71401	27µH
5201	4822 157 11868	2.7µH 5%
5204	4822 157 11411	100mH z
5205	4822 157 11411	100mH z
5206	4822 157 11411	100mH z
5242	4822 157 11706	10µH 5%
5342	4822 157 50961	22µH
5342	4822 156 21125	3.9µH 10%
5343	2722 122 00333	Delay line 160ns SDL-4893
5344	2722 122 00333	Delay line 160ns SDL-4893
5345	2722 122 00333	Delay line 160ns SDL-4893
5360	4822 157 51216	5.6µH
5400	2422 535 91027	Choke coil 11.7mHz 8.4Ω C906-0
5401	4822 157 11885	1000µH 5%
5445	2422 531 02464	LOT 1342.0033C
5445	3128 138 21411	Transformer LOT PSLOT 29”RF
5445	3128 138 21921	Transformer LOT PSLOT OV2076
5451	4822 157 11737	22µH 10%
5451	4822 157 11869	33µH 10%
5452	4822 157 11411	100mHz
5457	2422 535 91028	Linearity coil 25µH C907-01
5457	4822 157 11076	Linearity coil 25µH C907-01
5457	4822 157 11671	Linearity drum coil
5461	2422 536 00181	Transformer driver SRW0913DR-T
5461	2422 531 02465	Transformer sig driver SC10015
5463	2422 536 00048	Bridge coil C957-02
5463	4822 157 11711	Choke coil
5464	2422 531 02419	Bridge coil C946-01
5471	3198 018 73380	3.3µH 20%
5471	2422 535 94638	6.8µH 20%
5472	4822 157 51157	3.3µH
5480	4822 157 50961	22µH
5480	4822 156 20915	33µH
5480	5322 157 51687	39µH
5500	4822 157 10476	DMF-2820H
5501	4822 157 11523	DMF-2405
5502	2422 549 45296	Mains harmonic filter 38mH
5502	2422 549 44694	Mains harmonic filter 65mH
5520	3128 138 39721	Transformer CT425V
5520	2422 531 02544	Transformer POW LAYER PSS42-11
5520	2422 531 02539	Transformer SS42030-03
5521	4822 526 10704	Bead 100mHz
5560	4822 526 10704	Bead 100mHz
5561	4822 157 52392	27µH
5562	4822 526 10704	Bead 100mHz
5564	4822 526 10704	Bead 100mHz
5602	4822 157 11867	5.6µH 5%
5603	4822 157 11867	5.6µH 5%
5604	4822 157 11867	5.6µH 5%
5672	4822 157 71401	27µH
5678	4822 157 71401	27µH
5831	4822 157 11139	6.8µH 5%
5832	4822 157 11139	6.8µH 5%
5833	4822 157 11139	6.8µH 5%
5835	3198 018 31290	12µH 10%

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6001	4822 130 34142	BZX79-B33
6002	4822 130 11397	BAS316
6004	4822 130 11525	1SS356
6101	4822 130 10837	UDZS8.2B
6103	4822 130 10837	UDZS8.2B
6104	4822 130 10837	UDZS8.2B
6105	4822 130 10837	UDZS8.2B
6106	4822 130 11416	PDZ6.8B
6171	4822 130 42488	BYD33D
6201	4822 130 11397	BAS316
6202	4822 130 11397	BAS316
6206	4822 130 11416	PDZ6.8B
6207	9322 179 26673	ZTE2
6331	4822 130 30842	BAV21
6333	4822 130 30842	BAV21
6335	4822 130 30842	BAV21
6360	4822 130 30621	1N4148
6361	4822 130 11397	BAS316
6362	4822 130 11397	BAS316
6364	4822 130 11397	BAS316
6365	4822 130 11397	BAS316
6400	4822 050 21002	1K 1% 0,6W
6401	4822 130 34383	BZX79-B47
6401	4822 130 30864	BZX79-B68
6445	4822 130 11551	UDZS10B
6447	4822 130 30621	1N4148
6448	4822 130 34167	BZX79-B6V2
6449	5322 130 34337	BAV99
6452	4822 130 11397	BAS316
6453	3198 020 55680	BZX384-C5V6
6460	9340 559 50112	BY228/24
6460	4822 130 80298	DG3-7005L
6461	4822 130 80572	RGP30J
6462	4822 130 34197	BZX79-B12
6463	9340 548 61115	PDZ12B
6465	4822 130 30842	BAV21
6466	4822 130 30842	BAV21
6468	4822 130 11397	BAS316
6469	4822 130 42606	BYD33J
6470	5322 130 34337	BAV99
6476	4822 130 34281	BZX79-B15
6481	4822 130 34173	BZX79-B5V6
6482	4822 130 30862	BZX79-B9V1
6483	4822 130 34142	BZX79-B33
6485	4822 130 42606	BYD33J
6486	9322 164 42682	EGP20DL-5100
6487	4822 130 42488	BYD33D

6488	9322 164 42682	EGP20DL-5100
6490	4822 130 42606	BYD33J
6500	9322 132 55667	Bridge coil GBU4JL-7002
6520	4822 130 42488	BYD33D
6522	4822 130 11152	UDZ18B
6523	4822 130 30621	1N4148
6524	4822 130 31083	BYW55
6525	4822 130 31083	BYW55
6526	9340 548 67115	PDZ22B
6540	4822 130 34167	BZX79-B6V2
6541	4822 130 11551	UDZS10B
6560	3139 120 52021	BYV29X-500
6561	4822 130 32715	SB340
6563	4822 130 11397	BAS316
6565	5322 130 34331	BAV70
6566	4822 130 30621	1N4148
6567	4822 130 11148	UDZ4.7B
6567	4822 130 10837	UDZS8.2B
6569	4822 130 11397	BAS316
6570	9322 163 91685	BZX384-C6V2
6570	4822 130 10837	UDZS8.2B
6580	4822 130 11397	BAS316
6582	9322 175 70667	STPS10L60D
6691	9322 050 99682	LTL-10224WHCR
6692	9322 127 54667	TSOP1836UH1
6801	9340 548 52115	PDZ5.1B
6805	4822 130 10838	UDZ3.3B
6806	4822 130 10837	UDZS8.2B
6808	9322 179 26673	ZTE2
6831	4822 130 30621	1N4148
6901	4822 051 20008	Jumper

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7000	9352 628 51112	TDA8941P/N1
7001	4822 130 63732	MMUN2212
7101	5322 130 60159	BC846B
7131	5322 130 60159	BC846B
7200	9352 707 67557	TDA9565H/N1/5/0648
7200	9352 712 22557	TDA9565H/N1/5/0739
7201	5322 130 60159	BC846B
7204	4822 130 60373	BC856B
7206	5322 130 42755	BC847C
7209	5322 130 42718	BFS20
7210	5322 130 42718	BFS20
7330	9352 561 40112	TDA6108
7331	5322 130 60159	BC846B
7332	5322 130 60159	BC846B
7333	5322 130 60159	BC846B
7360	4822 130 40959	BC547B
7362	9322 166 55682	2SA1358
7363	4822 130 40959	BC547B
7365	9322 166 56682	2SC3421
7366	4822 130 41646	BF423
7367	4822 130 44568	BC557B
7400	9322 157 37687	STP3NC60FP
7441	4822 130 60373	BC856B
7443	4822 130 44568	BC557B
7444	4822 130 40959	BC547B
7450	3198 010 44010	PDTA114ET
7460	9340 550 92127	BU4508DX
7461	4822 130 40981	BC337-25
7462	9340 547 00215	PDTC143ZT
7463	4822 130 41246	BC327-25
7471	9352 701 64112	TDA8359J/N2
7480	4822 130 40823	BD139
7482	4822 130 40823	BD139
7515	9322 175 72667	TCET1104(G)
7520	9352 673 56112	TEA1507P/N1
7521	9322 160 63687	STP7NC80ZFP
7522	5322 130 60159	BC846B
7540	4822 130 40959	BC547B
7541	4822 130 11155	PDTC114ET
7542	4822 130 60373	BC856B
7560	4822 209 16978	LF33CV
7561	9340 547 00215	PDTC143ZT
7580	4822 130 60373	BC856B
7602	9322 147 25682	M24C16-WBN6
7606	9340 547 00215	PDTC143ZT
7801	5322 209 11102	HEF4052BT
7802	5322 209 14481	HEF4053BT
7803	5322 130 60159	BC846B
7803	4822 130 61129	BCV27
7804	5322 130 60159	BC846B
7804	4822 130 61129	BCV27
7805	5322 130 60159	BC846B
7806	5322 130 60159	BC846B
7807	5322 130 60159	BC846B
7831	9322 182 56682	MSP3411G-PO-B11
7831	9322 183 57682	MSP3415G-PO-B11
7834	5322 130 60159	BC846B
7835	5322 130 60159	BC846B
7901	9322 158 65667	AN7522N
7901	9322 166 29682	AN7580
7903	5322 130 60159	BC846B
9611	4822 157 52392	27µH

Side AV Panel [C + E1]

Various

0232	4822 267 31014	Headphone socket
0250	4822 265 11606	3p
0251	4822 267 10735	3p
0251	2422 025 15849	6p male
0253	2422 025 16382	3p male
0254	4822 267 10734	5p
0255	4822 267 10565	4p

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2171	5322 122 32311	470pF 10% 100V
2172	5322 122 32311	470pF 10% 100V
2173	5322 122 32311	470pF 10% 100V
2174	5322 122 32311	470pF 10% 100V
2176	5322 122 32311	470pF 10% 100V
2177	4822 124 40248	10µF 20% 63V
2178	5322 122 32311	470pF 10% 100V
2179	4822 124 40248	10µF 20% 63V

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3150	4822 116 83884	47kΩ 5% 0.5W
3151	4822 116 83868	150Ω 5% 0.5W
3152	4822 116 83884	47kΩ 5% 0.5W
3153	4822 116 83868	150Ω 5% 0.5W
3155	4822 116 52201	75Ω 5% 0.5W
3156	4822 116 52206	120Ω 5% 0.5W
3156	4822 116 83876	270Ω 5% 0.5W
3157	4822 116 52206	120Ω 5% 0.5W
3157	4822 116 83876	270Ω 5% 0.5W

-▶|-

6161	4822 130 34278	BZX79-B6V8

Front Interface [Q1]

Various

0157	3104 311 02471	Cable 5p 680m
0177	3104 311 03011	Cable 2p 340mm
0211	2422 025 16268	2p male
0212	2422 025 16268	2p male
0214	2422 025 06353	5p male
0231	2422 128 02972	Power switch

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2691	4822 124 40248	10µF 20% 63V
2692	4822 126 13751	47nF 10% 63V
2693	4822 126 13751	47nF 10% 63V
2694	4822 126 13751	47nF 10% 63V
2695	4822 126 13751	47nF 10% 63V
2698	5322 121 42386	100nF 5% 63V

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3500	4822 053 21335	3.3M Ω 5% 0.5W
3501	4822 053 21335	3.3M Ω 5% 0.5W
3691	4822 116 52219	330Ω 5% 0.5W
3693	4822 116 83872	220Ω 5% 0.5W

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6691	9322 050 99682	LTL-10224WHCR
6692	9322 127 54667	TSOP1836UH1

Top control [T, T1]

Various

0158	3139 131 01771	Cable 3p 1000mm
0158	3139 131 01711	Cable 3p 1340mm
0215	4822 267 10748	3p
0215	2422 025 16601	3p male
1091	4822 276 13775	Switch
1092	4822 276 13775	Switch
1093	4822 276 13775	Switch
1094	4822 276 13775	Switch

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3091	4822 051 20561	560Ω 5% 0.1W
3092	4822 051 20391	390Ω 5% 0.1W
3093	4822 051 20561	560Ω 5% 0.1W
3094	4822 051 20391	390Ω 5% 0.1W
3095	4822 051 20332	3.3kΩ 5% 0.1W
3096	4822 117 11139	1.5kΩ 1% 0.1W

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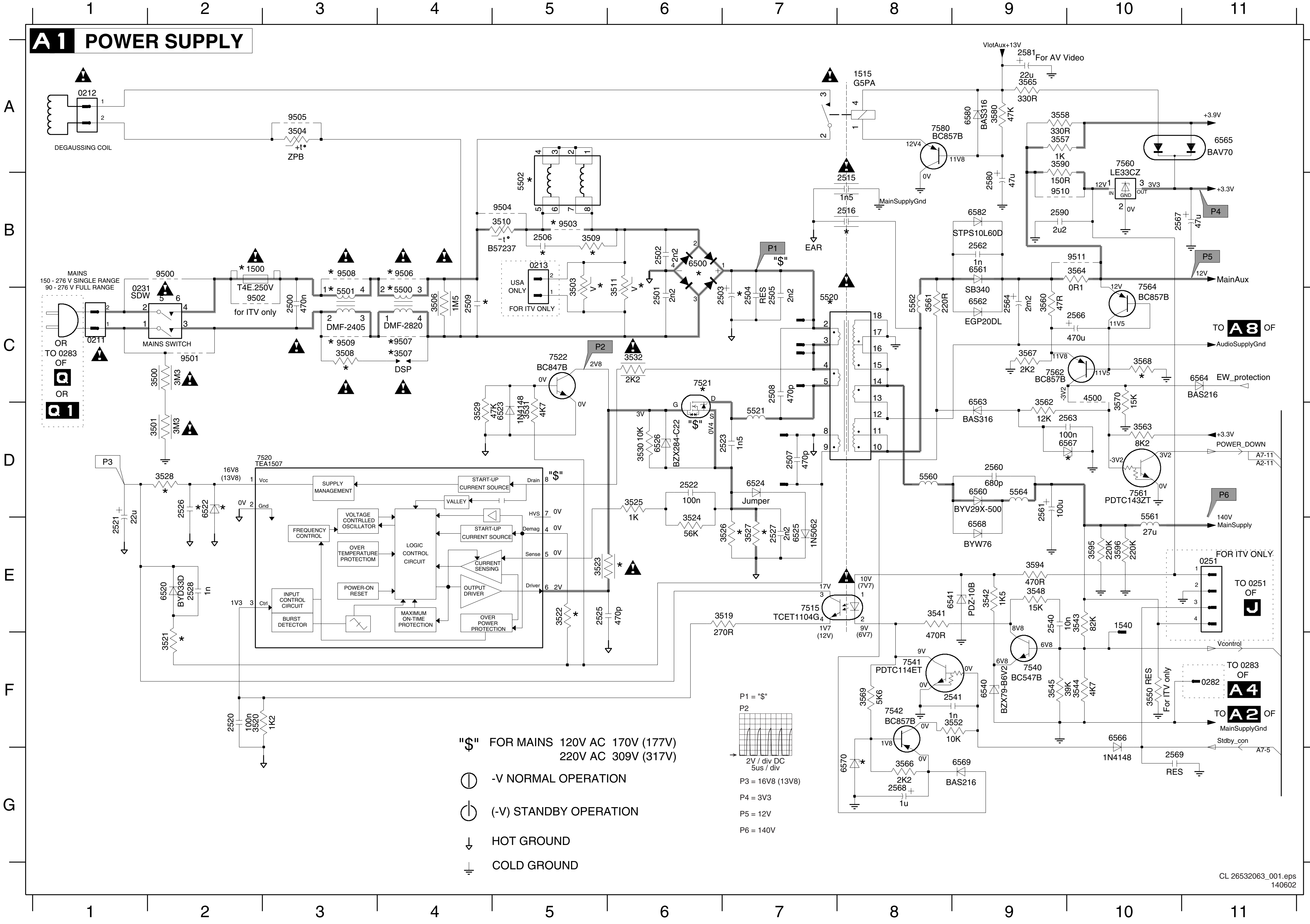
6091	4822 130 11528	1PS76SB10
6091	4822 130 31983	BAT85

Personal Notes:

Schematics and PWB's

Mono Carrier: Power supply


A1 POWER SUPPLY
1 2 3 4 5 6 7 8 9 10 11
A B C D E F G
0212
DEGAUSSING COIL
9505
3504
+t°
ZPB
MAINS
150 - 276 V SINGLE RANGE
90 - 276 V FULL RANGE
0231
SDW
9500
MAINS SWITCH
9501
0211
OR
TO 0283
OF
Q
OR
Q 1
3500
3M3
3501
3M3
1500
T4E.250V
9502
for ITV only
2500
470n
9508
5501
DMF-2405
9509
3508
9506
5500
DMF-2820
9507
3507
DSP
3506
1M5
2509
9504
3510
-t°
B57237
5502
9503
2506
3509
0213
USA
ONLY
FOR ITV ONLY
3503
3511
2502
2n2
6500
2501
2n2
2503
2504
RES
2505
2n2
P1
"$"
1515
G5PA
2515
1n5
2516
EAR
MainSupplyGnd
5520
VlotAux+13V
2581
For AV Video
22u
3565
330R
6580
BAS316
3580
47K
7580
BC857B
12V4
11V8
0V
2580
47u
3558
330R
3557
1K
3590
150R
9510
7560
LE33CZ
IN
GND
OUT
3V3
+3.9V
6565
BAV70
+3.3V
2567
47u
P4
2590
2u2
6582
STPS10L60D
2562
1n
6561
SB340
6562
EGP20DL
9511
3564
0R1
P5
12V
MainAux
5562
3561
220R
2564
2m2
3560
47R
7564
BC857B
2566
470u
11V5
TO A8 OF
AudioSupplyGnd
3567
2K2
7562
BC857B
3568
6564
EW_protection
BAS216
6563
BAS316
3562
12K
2563
100n
6567
3570
15K
4500
3563
8K2
+3.3V
POWER_DOWN
A7-11
A2-11
7561
PDTC143ZT
5560
2560
680p
6560
BYV29X-500
5564
6568
BYW76
2561
100u
5561
27u
P6
140V
MainSupply
3595
220K
3596
220K
FOR ITV ONLY
0251
TO 0251
OF
J
3594
470R
3548
15K
6541
PDZ-10B
3542
1K5
3541
470R
2540
10n
3543
82K
1540
Vcontrol
7540
BC547B
7541
PDTC114ET
2541
1n
3552
10K
6540
BZX79-B6V2
3545
39K
3544
4K7
3550 RES
For ITV only
0282
TO 0283
OF
A4
TO A2 OF
MainSupplyGnd
Stdby_con
A7-5
6566
1N4148
2569
RES
3569
5K6
7542
BC857B
6570
3566
2K2
2568
1u
6569
BAS216
7515
TCET1104G
10V
(7V7)
17V
1V7
(12V)
9V
(6V7)
3519
270R
P2
7522
BC847B
2V8
3532
2K2
3529
47K
6523
1N4148
3531
4K7
7521
3V
3530 10K
6526
BZX284-C22
"$"
0V4
5521
2508
470p
2523
1n5
2507
470p
6524
Jumper
2522
100n
3525
1K
3524
56K
3526
3527
2527
2n2
6525
1N5062
3523
3522
2525
470p
P3
3528
16V8
(13V8)
2521
22u
2526
6522
7520
TEA1507
Vcc
Gnd
Ctrl
SUPPLY MANAGEMENT
START-UP CURRENT SOURCE
Drain
VALLEY
VOLTAGE CONTROLLED OSCILLATOR
FREQUENCY CONTROL
LOGIC CONTROL CIRCUIT
HVS
Demag
Sense
Driver
OVER TEMPERATURE PROTECTION
CURRENT SENSING
POWER-ON RESET
OUTPUT DRIVER
INPUT CONTROL CIRCUIT
BURST DETECTOR
MAXIMUM ON-TIME PROTECTION
OVER POWER PROTECTION
1V3
6520
BYD33D
2528
1n
3521
2520
100n
3520
1K2
"$" FOR MAINS 120V AC 170V (177V)
220V AC 309V (317V)
-V NORMAL OPERATION
(-V) STANDBY OPERATION
HOT GROUND
COLD GROUND
P1 = "$"
P2
2V / div DC
5us / div
P3 = 16V8 (13V8)
P4 = 3V3
P5 = 12V
P6 = 140V
CL 26532063_001.eps
140602

0211	C1
0212	A1
0213	B5
0231	C1
0251	E11
0282	F11
1500	B2
1515	A8
1540	E10
2500	C3
2501	C6
2502	B6
2503	C7
2504	C7
2505	C7
2506	B5
2507	D7
2508	C7
2509	C4
2515	B8
2516	B8
2520	F2
2521	E1
2522	D6
2523	D7
2525	E5
2526	D2
2527	E7
2528	E2
2540	E9
2541	F9
2560	D9
2561	D9
2562	B9
2563	D10
2564	C9
2566	C10
2567	B10
2568	G8
2569	G10
2580	B9
2581	A9
2590	B9
3500	C2
3501	D2
3503	B5
3504	A3
3506	C4
3507	C4
3508	C3
3509	B5
3510	B5
3511	B6
3519	E7
3520	F2
3521	F2
3522	E5
3523	E5
3524	E6
3525	D6
3526	E7
3527	E7
3528	D2
3529	D4
3530	D6
3531	D5
3532	C6
3541	E8
3542	E9
3543	E10
3544	F10
3545	F9
3548	E9
3550	F10
3552	F9
3557	A9
3558	A9
3560	C9
3561	C8
3562	D9
3563	D10
3564	B10
3565	A9
3566	G8
3567	C9
3568	C10
3569	F8
3570	C10
3580	A9
3590	A9
3594	E9
3595	E10
3596	E10
4500	C10
5500	C4
5501	C3
5502	A5
5520	C7
5521	D7
5560	D8
5561	E10
5562	C8
5564	D9
6500	B6
6520	E2
6522	D2
6523	D5
6524	D7
6525	E7
6526	D6
6540	F9
6541	E9
6560	D9
6561	B9
6562	C9
6563	D9
6564	C11
6565	A11
6566	F10
6567	D10
6568	E9
6569	G9
6570	G8
6580	A9
6582	B9
7515	E7
7520	D3
7521	C6
7522	C5
7540	F9
7541	F8
7542	F8
7560	A10
7561	D10
7562	C9
7564	C10
7580	A8
9500	B2
9501	C2
9502	C2
9503	B5
9504	B5
9505	A3
9506	B4
9507	C4
9508	B3
9509	C3
9510	B9
9511	B10

Mono Carrier: Power supply Diversity Tables

DIVERSITY TABLE FOR A 1 POWER SUPPLY

REGION	NA		LA
MAINS RANGE	LR		FR
AUDIO OUTPUT	2X5W		2X5W
SET	25V-36V	21RB	21RF
2503	200V 470U	220V 220U	400V 220U
2505	1KV 2N2	1KV 2N2	1KV 2N2
2506	-	-	-
2509	-	-	-
2515	250V 1N5	250V 1N5	250V 1N5
2516	-	-	-
2520	16V 100N	50V 10N	50V 10N
2526	-	16V 470N	16V 470N
2561	160V 100U	160V 47U	160V 47U
3503	-	-	-
3504	PTC 120V 3R	PTC 120V 3R	PTC 220V 9R
3509	-	-	-
3510	NTC B57237	-	NTC B57237
3511	-	-	-
3521	4R7	4R7	4R7
3522	330K	330K	330K
3523	RST FUSE 100R	RST FUSE 100R	RST FUSE 47R
3526	0R1	OR15	0R15
3627	0R33	-	-
3528	SMD JUMPER	10R	10R
3545	270K	270K	270K
3552	4K7	10K	10K
3557	1K	1K	1K
3561	100R	100R	100R
3562	12K	12K	12K
3563	5K6	8K2	8K2
3565	330R	330R	330R
3594	330R	220R	220R
3595	220K	220K	220K
3596	220K	220K	220K
4500	SMD JUMPER	-	-
4608	-	-	-
4609	-	-	-
5500	-	-	FIL MAINS 10MH
5501	FL MAINS 5MH	FIL MAINS 22MH	-
5502	-	-	-
5520	SS39009-04	SS35107-01	SS35107-01
6500	GBU4JL-7002	GBU4JL-7002	GBU4JL-7002
6522	-	BZX394-C20	BZX384-C20
6524	1N5062	1N5062	1N5062
6526	BZX394-C22	BZX384-C22	BZX384-C22
6541	BZX384-C10	BZX384-C9V1	BZX384-C9V1
6560	BYV29X-500(PHSE)	-	-
6566	1N4148	1N4148	1N4148
6567	-	-	BZX384-C4V7
6568	-	BYW76-RAS 15/10	BYW76-RAS 15/10
6570	BZX384-C6V8	BZX384-C6V8	BZX384-C6V2
6582	-	-	-
7521	STP8NC50FP	2SK2750	STP6NC80ZFP

ITEM	SNDAMP-1x1W-MN-GL	SNDAMP-2x1W-ST-EU/AP	SNDAMP-1x3W-NA/LA	SNDAMP-2x10W-ST-AP/EU	SNDAMP-2x3W-ST-NA	SNDAMP-2x5W-ST-EU/AP	SNDAMP-2x5W-ST-IND-MKII	SNDAMP-2x5W-ST-LA	SNDAMP-2x1W-NA	SNDAMP-2x5W-LA
2566	470uF/6V3	470uF/6V3	470uF/6V3	---	470uF/6V3	470uF/6V3	---	470uF/6V3	470uF/6V3	470uF/6V3
3560	47R	47R	47R	---	47R	47R	---	47R	47R	47R
3564	0R1	0R1	0R1	---	0R1	0R1	---	0R1	0R1	0R1
3567	3K3	1K8	3K3	---	1K8	1K8	---	1K8	3K3	1K8
3568	8K2	8K2	8K2	---	8K2	8K2	---	8K2	8K2	8K2
6561	---	DIO SBE340	---	---	---	DIO SBE340	DIO SBE340	DIO SDE340	---	DIO SBE340
6562	DIO EGP20	---	DIO EGP20	---	DIO EGP20	---	---	---	DIO EGP20	---
7562	BC857B	BC857B	BC857B	---	BC857B	BC857B	---	BC857B	BC857B	BC857B
7564	BC857B	BC857B	BC857B	---	BC857B	BC857B	---	BC857B	BC857B	BC857B

ITEM	SNDAMP-2x3W-LA	SNDAMP-2x1W-NA	SNDAMP-2x3W-ST-NA	SNDAMP-2x5W-ST-AP	SNDAMP-2x3W-ST-NDBX-NA/LA	SNDAMP-2x5W-ST+WOOFER-IND	SNDAMP-1x4W-MN-AP	SNDAMP-2x5W-VD-ST-EU	SNDAMP-2x10W-VD-ST-EU
2566	470uF/6V3	470uF/6V3	470uF/6V3	470uF/6V3	470uF/6V3	---	---	---	---
3560	47R	47R	47R	47R	47R	---	---	---	---
3564	0R1	0R1	0R1	0R1	0R1	---	0R1	0R1	---
3567	1K8	3K3	1K8	1K8	1K8	---	---	---	---
3568	8K2	8K2	8K2	8K2	8K2	---	---	---	---
6561	---	---	---	DIO SBE340	---	DIO SBE340	---	DIO SB340	---
6562	DIO EGP20	DIO EGP20	DIO EGP20	---	DIO EGP20	---	DIO EGP20	---	---
7562	BC857B	BC857B	BC857B	BC857B	BC857B	---	---	---	---
7564	BC857B	BC857B	BC857B	BC857B	BC857B	---	---	---	---

ITEM	KEYBOARD-IR+LED-GL	R+LED-EU/LA/AP	TC.PNL+FI.PNL-INTERF EU/NA/AP	L2K2.FRNT. 55K-NA	L2K2.FRNT. 55K-LA	L2K2.FRNT. NON-55K-NA	L2K2.FRNT NON-55K-LA	IR+LED.55K NA
3500	3M3	3M3	---	3M3	3M3	3M3	3M3	3M3
0239	3M3	3M3	---	3M3	3M3	3M3	3M3	3M3
9500	---	---	YES	YES	---	YES	---	YES
9501	---	---	YES	YES	---	YES	---	YES

ITEM	SINGLE SCART IN-DVD	DUAL SCART IN
2581	---	22uF
2132	---	390pF

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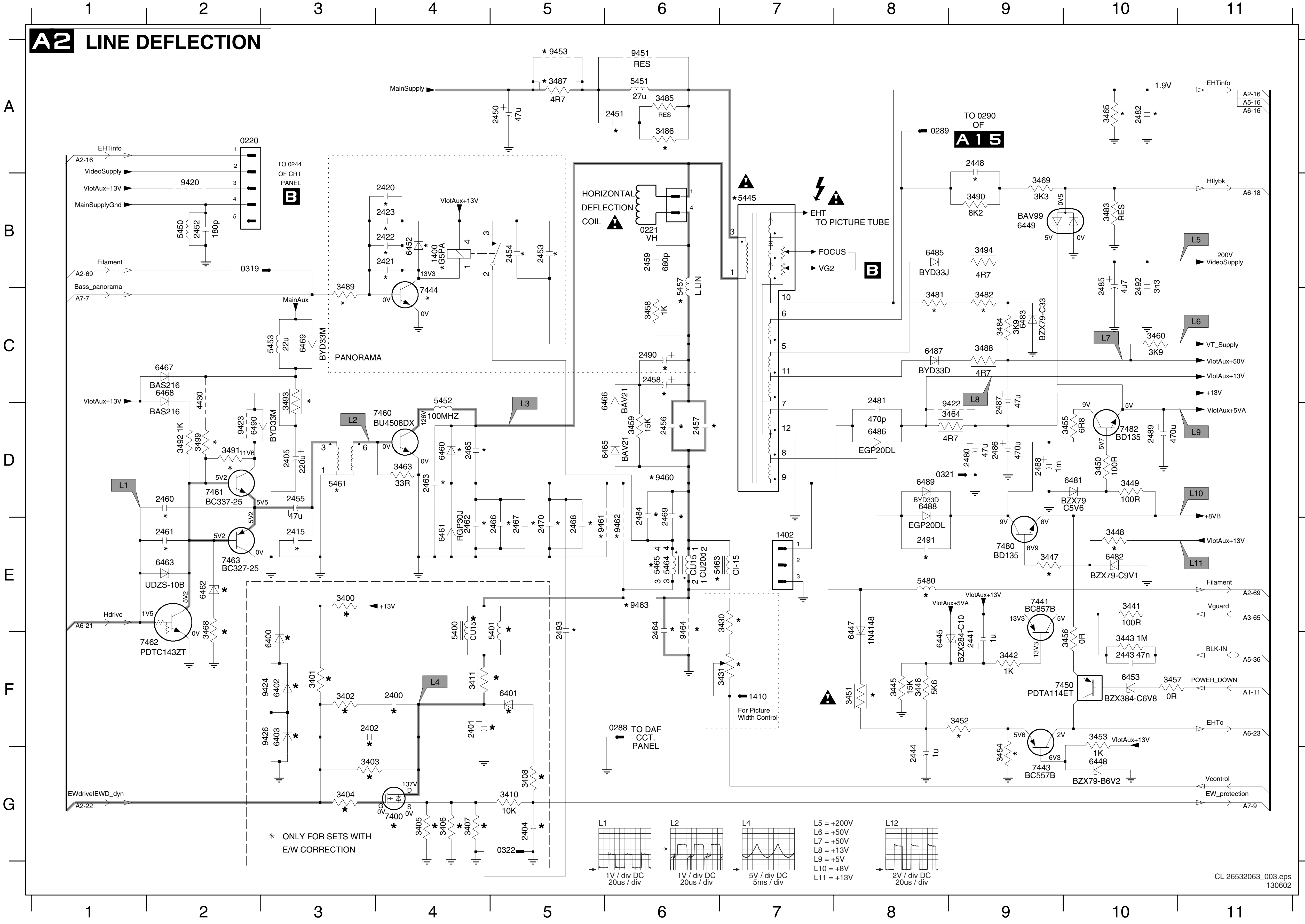
210502

Mono Carrier: Line Deflection


A2 LINE DEFLECTION
MainSupply
EHTinfo
VideoSupply
VlotAux+13V
MainSupplyGnd
Filament
Bass_panorama
MainAux
PANORAMA
HORIZONTAL DEFLECTION COIL
EHT TO PICTURE TUBE
FOCUS
VG2
TO 0244 OF CRT PANEL
TO 0290 OF A15
Hflybk
200V VideoSupply
VT_Supply
VlotAux+50V
+13V
VlotAux+5VA
+8VB
Hdrive
EWdrive|EWD_dyn
Vguard
BLK-IN
POWER_DOWN
EHTo
Vcontrol
EW_protection
TO DAF CCT. PANEL
For Picture Width Control
ONLY FOR SETS WITH E/W CORRECTION
L1 1V / div DC 20us / div
L2 1V / div DC 20us / div
L4 5V / div DC 5ms / div
L5 = +200V
L6 = +50V
L7 = +50V
L8 = +13V
L9 = +5V
L10 = +8V
L11 = +13V
L12 2V / div DC 20us / div
CL 26532063_003.eps 130602

0220	A2
0221	B6
0288	F6
0289	A9
0319	B2
0321	D8
0322	G5
1400	B4
1402	E7
1410	F7
2400	F4
2401	F4
2402	F3
2404	G5
2405	D3
2415	E3
2420	B4
2421	B4
2422	B4
2423	B4
2441	F9
2443	F10
2444	G8
2448	A9
2450	A5
2451	A6
2452	B2
2453	B5
2454	B5
2455	D3
2456	D6
2457	D6
2458	C6
2459	B6
2460	D2
2461	E2
2462	E4
2463	D4
2464	E6
2465	D4
2466	E5
2467	E5
2468	E5
2469	D6
2470	E5
2480	D9
2481	D8
2482	A10
2484	D6
2485	B10
2486	D9
2487	D9
2488	D9
2489	D10
2490	C6
2491	E8
2492	B10
2493	E5
3400	E3
3401	F3
3402	F3
3403	G3
3404	G3
3405	G4
3406	G4
3407	G4
3408	G5
3410	G5
3411	F4
3430	E7
3431	F7
3441	E10
3442	F9
3443	F10
3445	F8
3446	F8
3447	E9
3448	E10
3449	D10
3450	D10
3451	F8
3452	F9
3453	F10
3454	G9
3455	D10
3456	F10
3457	F10
3458	C6
3459	D6
3460	C10
3463	D4
3464	D9
3465	A10
3468	E2
3469	B9
3481	C8
3482	C9
3483	B10
3484	C9
3485	A6
3486	A6
3487	A5
3488	C9
3489	C3
3490	B9
3491	D2
3492	D2
3493	C3
3494	B9
3499	D2
4430	C2
5400	E4
5401	E5
5445	B7
5450	B2
5451	A6
5452	D4
5453	C3
5457	B6
5461	D3
5463	E7
5464	E6
5465	E6
5480	E8
6400	F3
6401	F5
6402	F3
6403	F3
6445	F8
6447	E8
6448	G10
6449	B9
6452	B4
6453	F10
6460	D4
6461	E4
6462	E2
6463	E2
6465	D6
6466	C6
6467	C2
6468	C2
6469	C3
6481	D10
6482	E10
6483	C9
6485	B8
6486	D8
6487	C8
6488	D8
6489	D8
6490	D2
7400	G4
7441	E9
7443	G9
7444	C4
7450	F10
7460	D3
7461	D2
7462	F1
7463	E2
7480	E9
7482	D10
9420	B2
9422	D9
9423	D2
9424	F3
9426	F3
9451	A6
9453	A5
9460	D6
9461	E5
9462	E6
9463	E6
9464	E6

Mono Carrier: Line Deflection Diversity Tables

DIVERSITY TABLE FOR A2 LINE DEFLECTION

REGION	LATAM		NAFTA	
TUBE	PHILIPS	SMGK	SMGK	SMGK
EW/NON EW	NOEW	NO EW	NO EW	EW
TYPE OF TUBE	21RF	21RF	21RF	27RF (PIP)
ITEM				
2401	-	-	-	2U2
2402	-	-	-	470P
2404	-	-	-	47U
2405	220U-16V	220U-16V	220u-16v	220U-25V
2451	-	-	-	22N
2457	270N	270N	270N	360N
2462	-	-	-	-
2463	390P	680P	390P	820P
2464	-	-	-	2U2
2465	9N1	9N1	9N1	12N
2466	-	-	-	-
2467	15N	68N	15N	15N
2468	33N	33N	33N	15N
2482	33N	68N	33N	180N
3400	-	-	-	330R
3401	-	-	-	220K
3403	-	-	-	82K
3404	-	-	-	1K
3405	-	-	-	4R7
3406	-	-	-	4R7
3408	-	-	-	100R
3410	-	-	-	10K
3411	-	-	-	4R7
3447	180R	180R	180R	56R
3448	820R	820R	820R	470R
3451	10R	10R	10R	3R9
3452	47K	47K	5K1	5K1
3454	15K	15K	2K	2K
3456	SM JUMPER	SM JUMPER	SM JUMPER	SM JUMPER
3457	SM JUMPER	SM JUMPER	SM JUMPER	SM JUMPER
3468	-	-	-	100R
3481	18K	18K	18K	12K
3482	12K	8K2	12K	10K
3484	16	29	24	34
3486	-	-	-	22R
3491	SM 10K	SM 10K	24	SM 10K
3492	SM 820R	SM 1K	SM 820R	SM 1K
3493	6R8	6R8	6R8	6R8
3499	-	-	-	-
4401	-	-	-	SM JUMPER
4402	-	-	-	SM JUMPER
4430	-	-	-	-
5401	-	-	-	1000U
5445	2519	2519	2519	21421
5451	-	-	-	22U
5453	22U	22U	22U	22U
5457	00425	00425	00425	53201
5461	SC10015-00 B	SC10015-00 B	SC10015-00 B	SC10015-00 B
5463	-	-	-	CHOKE
5480	LAL04A 18U	LAL04A 22U	LAL04A 18U	LAL04A 33U
6400	-	-	-	1K
6401	-	-	-	BZX79-C47
6453	BZX384-C5V6	BZX384-C5V6	BZX384-C5V6	BZX384-C6V8
6460	BY228/24	BY228/24	BY228/24	BY228/24
6462	-	-	-	BZX79-C9V1
6463	BZX384-C9V1	BZX384-C8V2	BZX384-C9V1	BZX384-C10V
6467	-	-	-	-
6469	-	-	-	-
7400	-	-	-	STP3NC60FP
7450	PDTA114ET	PDTA114ET	PDTA114ET	PDTA114ET
7606	-	-	-	PDTC143ZT
9414	-	-	-	YES
9424	--	-	-	YES
9426	-	-	-	YES
9451	YES	YES	YES	-
9463	-	-	-	YES
9646	-	-	-	YES
9655	-	-	-	YES
9656	-	-	-	YES
9685	-	-	-	YES
9921	-	-	-	YES

LATAM	L2K2													
REGION	EU							AP		AP/CH		IN		CH
TUBE	PHCO		LG.PH			SMGK		LGPD	LG.PH	SMGK		SMGK	LG.PH	LG.PH
ITEM	28WR	32WR	21RF	29RF	24WR	29RF	29RF-2x10W	21RF-2x10W	21RF-2x5W	29RF	21RF-2x10W	21RF-2x5W	29RF-2x5W	29FL-2x10W
5464	C946-01	C946-01	---	---	C946-01	---	---	---	---	---	---	---	---	---
5480	LAL04 39U	LAL04 39U	LAL04 22U	SPT0508 18U	LAL04 18U	LAL04 22U	LAL04 33U	LAL04 27U	LAL04 27U	LAL04 18U	LAL04 27U	LAL04 27U	LAL04 27U	LAL04 27U
6171	BYD 33D	---	---	---	BYD 33D	---	---	---	---	---	---	---	---	---
6401	BZX79-C68	BZX79-C68	BZX79-C47	BZX79-C47	BZX79-C68	BZX79-C47	BZX79-C47	BZX79-C47	BZX79-C47	BZX79-C47	BZX79-C47	BZX79-C47	BZX79-C47	BZX79-C47
6452	BAS 316	BAS 316	---	---	BAS 316	---	---	---	---	---	---	---	---	---
6460	DG3-7005L	DG3-7005L	BY228/24	BY228/24	BY228/24	BY228/24	BY228/24	BY228/24	BY228/24	BY228/24	BY228/24	BY228/24	BY228/24	BY228/24
6462	BZX78-C12	BZX78-C12	---	---	BZX78-C12	BZX79-C10	---	---	---	---	---	---	---	---
6463	---	---	BZX384-C12	BZX384-C10	---	---	BZX384-C12	BZX384-C12	BZX384-C10	BZX384-C10	BZX384-C12	BZX384-C8V2	BZX384-C10	BZX384-C12
6464	---	---	---	---	---	---	---	---	---	BAS 316	---	---	BAS 316	BAS 316
6467	---	---	---	---	---	BAS 316	---	---	---	---	---	---	---	---
6469	BYD 33J	BYD 33J	---	---	BYD 33D	BYD 33J	BYD 33J	BYD 33J	---	BYD 33J	BYD 33J	---	---	BYD 33J
6490	BYD 33J	BYD 33J	---	---	BYD 33D	---	BYD 33J	BYD 33J	---	BYD 33J	BYD 33J	---	---	BYD 33J
7444	BC547B	BC547B	---	---	BC547B	---	---	---	---	---	---	---	---	---
9423	---	---	JUMPER	JUMPER	---	JUMPER	---	---	JUMPER	---	---	JUMPER	JUMPER	---
9451	---	---	---	---	---	---	---	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER
9460	---	---	JUMPER	JUMPER	---	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER
9462	JUMPER	JUMPER	---	---	JUMPER	---	---	---	---	---	---	---	---	---
9463	---	---	JUMPER	JUMPER	---	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER
9464	JUMPER	JUMPER	---	---	JUMPER	---	---	---	---	---	---	---	---	---
9635	JUMPER	JUMPER	---	---	JUMPER	---	---	---	---	---	---	---	---	---
9636	JUMPER	JUMPER	---	---	JUMPER	---	---	---	---	---	---	---	---	---
9921	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	---	---	---	---	---	---	---

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Mono Carrier: Line Deflection Diversity Tables

DIVERSITY TABLE FOR A2 LINE DEFLECTION

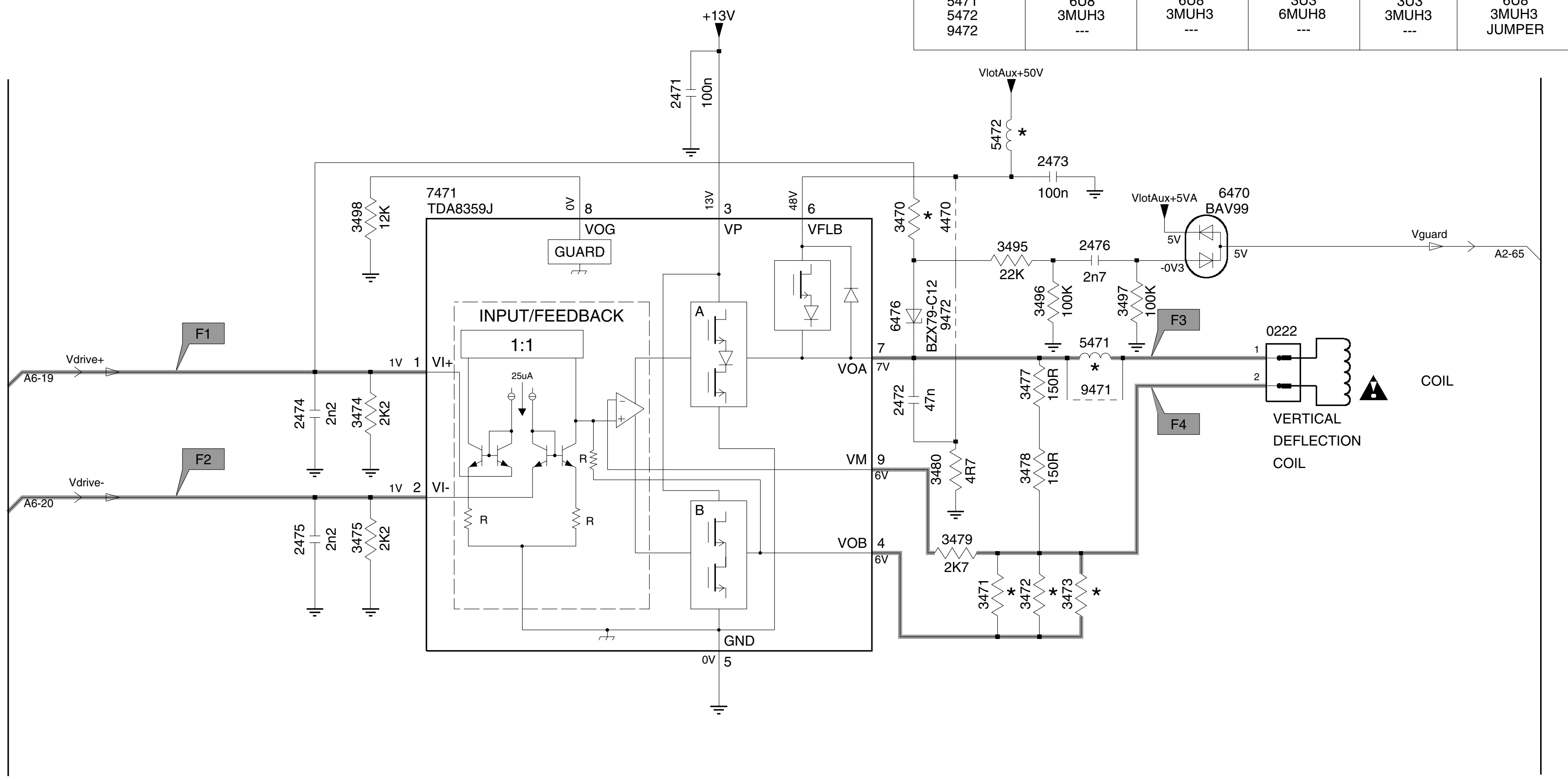
LATAM	L2K2													
REGION	EU							AP		AP/CH		IN		CH
TUBE	PHCO		LG.PH			SMGK		LGPD	LG.PH	SMGK		SMGK	LG.PH	LG.PH
ITEM	28WR	32WR	21RF	29RF	24WR	29RF	29RF-2x10W	21RF-2x10W	21RF-2x5W	29RF	21RF-2x10W	21RF-2x5W	29RF-2x5W	29FL-2x10W
1400	12V 5A LKS1A-H10	12V 5A LKS1A-H10	---	---	12V 5A LKS1A-H10	---	---	---	---	---	---	---	---	---
2174	500V 470P	---	---	---	---	---	---	---	---	---	---	---	---	---
2175	16V 470U	---	---	---	---	---	---	---	---	---	---	---	---	---
2209	50V 10U	50V 10U	50V 10U	50V 4U7	50V 10U	50V 10U	50V 10U	50V 22U	50V 22U	50V 4U7	50V 10U	50V 10U	50V 10U	50V 10U
2216	10V 2200U	10V 2200U	16V 1000U	16V 1000U	10V 2200U	50V 1000U	16V 1000U	16V 1000U	16V 1000U	16V 1000U	16V 1000U	16V 1000U	10V 1000U	10V 2200U
2243	50V 10N	50V 10N	50V 10N	50V 10N	50V 10N	50V 10N	50V 10N	50V 6N8	50V 6N8	50V 2N2	50V 6N8	50V 6N8	50V 2N2	50V 2N2
2245	25V 330N	25V 330N	25V 330N	25V 220N	25V 220N	25V 220N	25V 220N	25V 330N	25V 330N	25V 220N	25V 220N	25V 220N	25V 100N	25V 100N
2247	10V 2200U	10V 2200U	16V 2200U	16V 1000U	10V 2200U	16V 1000U	16V 1000U	16V 1000U	16V 1000U	16V 1000U	16V 1000U	16V 1000U	16V 1000U	10V 2200U
2401	100V 2U2	100V 2U2	50V 2U2	50V 2U2	100V 2U2	50V 2U2	50V 2U2	50V 2U2	50V 2U2	50V 2U2	50V 2U2	50V 2U2	50V 2U2	50V 2U2
2405	25V 220U	25V 220U	16V 220U	25V 220U	25V 220U	25V 220U	25V 220U	16V 220U	16V 220U	25V 220U	16V 220U	16V 220U	25V 220U	25V 220U
2420	16V 1U	16V 1U	---	---	16V 1U	---	---	---	---	---	---	---	---	---
2421	50V 470P	50V 470P	---	---	50V 470P	---	---	---	---	---	---	---	---	---
2451	50V 22N	50V 22N	50V 15N	50V 22N	50V 22N	50V 22N	50V 22N	---	---	---	---	---	---	---
2454	250V 68N	250V 68N	---	---	250V 68N	---	---	---	---	---	---	---	---	---
2457	250V 470N	250V 470N	250V 330N	250V 330N	---	250V 330N	250V 330N	250V 270N	250V 270N	250V 360N	250V 270N	250V 270N	250V 330N	250V 330N
2458	---	---	100V 2U2	100V 2U2	---	100V 2U2	100V 2U2	100V 2U2	100V 2U2	100V 2U2	100V 2U2	100V 2U2	100V 2U2	100V 2U2
2463	2KV 680P	2KV 680P	2KV 470P	2KV 680P	2KV 1N2	2KV 680P	2KV 680P	2KV 470P	2KV 470P	2KV 2N2	2KV 390P	2KV 290P	2KV 2N2	2KV 2N2
2464	---	---	160V 2U2	160V 2U2	---	160V 2U2	160V 2U2	160V 2U2	160V 2U2	160V 2U2	160V 2U2	160V 2U2	160V 2U2	160V 2U2
2465	1K6V 12N	1K6V 12N	1K6V 8N2	1K6V 12N	1K6V 12N	1K6V 12N	1K6V 12N	1K6V 8N2	1K6V 8N2	1K6V 15N	1K6V 9N1	1K6V 9N1	1K6V 15N	1K6V 15N
2466	---	---	400V 15N	400V 10N	---	400V 10N	400V 10N	---	---	---	---	---	---	---
2467	1KV 9N1	1KV 9N1	---	---	1KV 9N1	---	---	400V 22N	400V 22N	400V 22N	400V 22N	400V 22N	400V 22N	400V 22N
2468	1KV 9N1	1KV 9N1	---	400V 18N	1KV 9N1	400V 18N	400V 18N	400V 22N	400V 22N	400V 15N	400V 22N	400V 22N	400V 15N	400V 15N
2469	250V 560N	250V 560N	---	---	250V 560N	---	---	---	---	---	---	---	---	---
2482	250V 33N	250V 33N	250V 33N	250V 68N	250V 68N	250V 68N	250V 68N	250V 33N	250V 33N	250V 120N	250V 33N	250V 33N	250V 120N	250V 120N
2490	100V 2U2	100V 2U2	---	---	100V 2U2	---	---	---	---	---	---	---	---	---
2493	---	---	400V 15N	---	---	---	---	---	---	---	---	---	---	---
3176	NFR25H 1R	---	---	---	---	---	---	---	---	---	---	---	---	---
3206	120K	120K	220K	33K	220K	150K	150K	100K	100K	33K	82K	82K	68K	68K
3247	560K	560K	180K	680K	680K	560K	560K	270K	270K	680K	270K	270K	680K	680K
3250	1K	1K	8K2	8K2	1K	8K2	8K2	8K2	8K2	8K2	8K2	8K2	8K2	6K2
3257	10M	10M	1M	10M	10M	10M	10M	10M	10M	10M	10M	10M	10M	10M
3258	100K	100K	180K	270K	100K	270K	270K	390K	390K	100K	100K	180K	180K	180K
3259	470K	470K	4M7	470K	470K	470K	470K	470K	470K	470K	470K	470K	470K	470K
3400	330R	330R	330R	330R	---	330R	330R	330R	330R	330R	330R	330R	330R	330K
3401	33K	33K	22K	220K	---	220K	220K	22K	22K	68K	33K	22K	33K	33K
3403	100K	100K	68K	82K	100K	82K	82K	100K	100K	100K	100K	100K	100K	100K
3405	4R7	4R7	4R7	4R7	10R	4R7	4R7	4R7	4R7	4R7	4R7	4R7	4R7	4R7
3406	4R7	4R7	4R7	4R7	10R	4R7	4R7	4R7	4R7	4R7	4R7	4R7	4R7	4R7
3407	4R7	4R7	---	---	---	---	---	---	---	---	---	---	---	---
3408	10K	10K	100R	100R	10K	100R	100R	100R	100R	100R	100R	100R	100R	100R
3447	180R	180R	180R	180R	180R	180R	180R	56R	56R	56R	180R	180R	56R	56R
3465	56K	56K	22K	27K	27K	27K	27K	27K	27K	27K	68K	68K	27K	27K
3468	180R	180R	180R	---	180R	100R	---	---	---	---	---	---	---	---
3481	22K	22K	27K	15K	10K	15K	15K	15K	15K	15K	22K	22K	15K	15K
3482	390R	390R	3K9	6K8	24K	5K6	5K6	12K	12K	8K2	3K9	3K9	8K2	8K2
3486	3W 22R	3W 22R	3W 33R	3W 22R	3W 22R	3W 22R	3W 22R	---	---	---	---	---	---	---
3489	3K9	3K9	---	---	3K9	---	---	---	---	---	---	---	---	---
3491	3K3	3K3	10K	10K	3K3	---	10K	10K	10K	10K	10K	10K	10K	10K
3492	330R	330R	1K	1K	330R	1K	1K	1K	1K	1K	1K	1K	1K	1K
3499	---	---	---	---	---	10K	---	---	---	---	---	---	---	---
3617	4K7	4K7	---	---	4K7	---	---	---	---	---	---	---	---	---
3619	8K2	8K2	---	---	8K2	---	---	---	---	---	---	---	---	---
3640	100R	100R	---	---	100R	---	---	---	---	---	---	---	---	---
4402	SMD JUMPER	SMD JUMPER	SMD JUMPER	SMD JUMPER	SMD JUMPER	SMD JUMPER	SMD JUMPER	---	---	---	---	---	---	---
4430	---	---	---	---	---	SMD JUMPER	---	---	---	---	---	---	---	---
5180	27U	27U	---	---	---	---	---	---	---	---	---	---	---	---
5400	BF40 C906-01	BF40 C906-01	---	---	8R40 C906-01	---	---	---	---	---	---	---	---	---
5401	---	---	1000U	1000U	---	1000U	1000U	1000U	1000U	1000U	1000U	1000U	1000U	1000U
5445	PSLOT 0V2076	PSLOT 0V2076	1342 0033C	PSLOT 29"RF	USLOT +S	USLOT 29"RF	PSLOT 29"RF	JF0501-2135	JF0501-2135	JF0501-2136	JF0501-2135	JF0501-2135	JF0601-2136	JF0501-2136
5451	22U	22U	33U	22U	22U	22U	22U	---	---	---	---	---	---	---
5453	---	---	JUMPER	JUMPER	---	---	---	---	---	---	---	LAL04 22U	LAL04 22U	---
5457	LNCOR DRUM	25UH	LINCOR DRUM	LINCOR DRUM	LINCOR DRUM	LINCOR DRUM	LINCOR DRUM	82UH	82UH	LNCOR DRUM	82UH	82UH	LINCOR DRUM	LINCOR DRUM
5461	SRW0913DR-T02	SRW0913DR-T02	SRW0913DR-T01	SRW0913DR-T06	SRW0913DR-T02	SRW0913DR-T02	SRW0913DR-T02	SC10009-03	SC100015-00	SC100015-00	SC10009-03	SC100015-00	SC10013-00	SC10015-00
5463	---	---	C957-02	CU15	---	CU15	CU15	C957-02	C957-02	CU15	C957-02	C957-02	CU15	---

CL 26532063_007.eps
210502

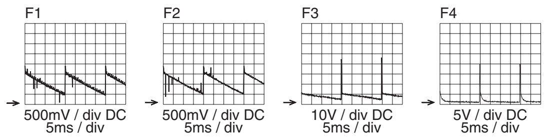
Mono Carrier: Frame Deflection

A3 FRAME DEFLECTION

MODEL	L2K2						
REGION	EU				AP	GL	CH/IN
TUBE	PHCO		LG.PH		LG.PH	SMGK(SF)	LG.PH
SET	28WR	32WR	29RF	24WR	21RF	21RF	29RF
2472	63V 150N	63V 150N	63V 150N	63V 150N	100V 10N	100V 10N	63V 150N
3470	470K	270K	330K	470K	270K	470K	470K
3471	2R2	3R9	3R3	2R2	3R9	3R9	3R9
3472	3R3	3R3	3R3	3R3	4R7	3R9	3R9
3473	3R9	3R9	3R3	3R9	6R8	---	---
3480	1R5	1R5	1R5	1R5	---	---	1R5
4470	---	---	---	---	SMD_JUMPER	SMD_JUMPER	---
5471	6U8	6U8	3U3	3U3	6U8	6U8	3U3
5472	3MUH3	3MUH3	6MUH8	3MUH3	3MUH3	6MUH8	3MUH3
9472	---	---	---	---	JUMPER	JUMPER	---


+13V
2471
100n
7471
TDA8359J
3498
12K
0V
8
VOG
GUARD
13V
3
VP
48V
6
VFLB
3470
*
4470
VlotAux+50V
5472
*
2473
100n
VlotAux+5VA
6470
BAV99
5V
-0V3
5V
3495
22K
2476
2n7
3496
100K
3497
100K
Vguard
A2-65
6476
BZX79-C12
9472
INPUT/FEEDBACK
1:1
25uA
R
A
B
F1
F2
F3
F4
Vdrive+
A6-19
Vdrive-
A6-20
1V
1
VI+
1V
2
VI-
2474
2n2
3474
2K2
2475
2n2
3475
2K2
7
VOA
7V
2472
47n
5471
*
9471
3477
150R
0222
1
2
COIL
VERTICAL
DEFLECTION
COIL
VM
9
6V
3480
4R7
3478
150R
VOB
4
6V
3479
2K7
3471
*
3472
*
3473
*
GND
0V
5

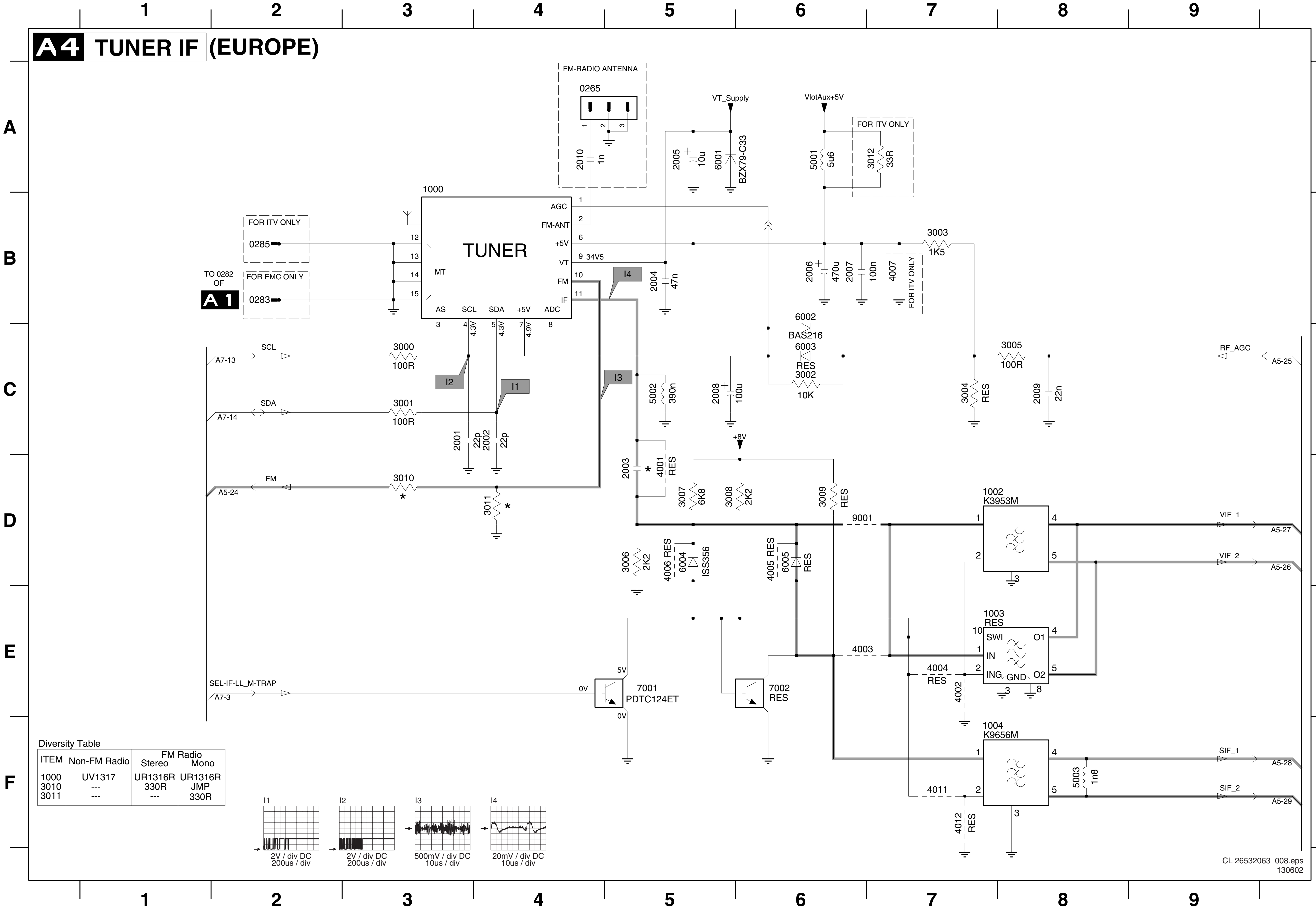
REGION	NAFTA/LATAM	NAFTA/LATAM	NAFTA/LATAM	NAFTA/LATAM
TUBE	PHILIPS	LG PHILIPS	PHILIPS	SMGK
TYPE OF TUBE	21RF	21RF	27V/29"	27RF
ITEM				
2472	10N	150N	150N	150N
3470	SM 270K	SM270K	SM 330K	SM 470K
3471	6R8	3R9	3R3	3R9
3472	6R8	6R8	3R3	3R9
3473	3R9	6R8	3R3	2R2
3480	-	1R5	1R5	1R5
4470	SM JUMPER	-	-	-
5471	3U3	6U8	3U3	6U8
9472	YES	-	-	-



CL 26532063_004.eps
130602

0222	C8
2471	B5
2472	C6
2473	B7
2474	C3
2475	D3
2476	C7
3470	B6
3471	D7
3472	D7
3473	D7
3474	C4
3475	D4
3477	C7
3478	D7
3479	D7
3480	D6
3495	C7
3496	C7
3497	C7
3498	B4
4470	B7
5471	C7
5472	B7
6470	B8
6476	C6
7471	B4
9471	C7
9472	C7

Mono Carrier: Tuner IF


A4 TUNER IF (EUROPE)
1 2 3 4 5 6 7 8 9
A B C D E F
FM-RADIO ANTENNA
0265
2010 1n
VT_Supply
VlotAux+5V
FOR ITV ONLY
2005 10u
6001 BZX79-C33
5001 5u6
3012 33R
1000
TUNER
AGC
FM-ANT
+5V
VT
FM
IF
MT
AS SCL SDA +5V ADC
34V5
4.3V 4.3V 4.9V
FOR ITV ONLY
0285
TO 0282 OF
A1
FOR EMC ONLY
0283
2004 47n
2006 470u
2007 100n
4007 FOR ITV ONLY
3003 1K5
6002 BAS216
6003 RES
3002 10K
2008 100u
3005 100R
RF_AGC
A5-25
3004 RES
2009 22n
SCL
A7-13
3000 100R
I2
I1
SDA
A7-14
3001 100R
2001 22p
2002 22p
I4
I3
5002 390n
2003 *
4001 RES
+8V
FM
A5-24
3010 *
3011 *
3007 6K8
3008 2K2
3009 RES
9001
1002 K3953M
VIF_1
A5-27
VIF_2
A5-26
3006 2K2
4006 RES
6004 ISS356
4005 RES
6005 RES
1003 RES
SWI IN ING GND O1 O2
4003
4004 RES
4002
SEL-IF-LL_M-TRAP
A7-3
5V 0V 0V
7001 PDTC124ET
7002 RES
1004 K9656M
SIF_1
A5-28
5003 1n8
SIF_2
A5-29
4011
4012 RES
I1 I2 I3 I4
2V / div DC 200us / div
2V / div DC 200us / div
500mV / div DC 10us / div
20mV / div DC 10us / div
CL 26532063_008.eps 130602

Diversity Table

ITEM	Non-FM Radio	FM Radio	
		Stereo	Mono
1000	UV1317	UR1316R	UR1316R
3010	---	330R	JMP
3011	---	---	330R

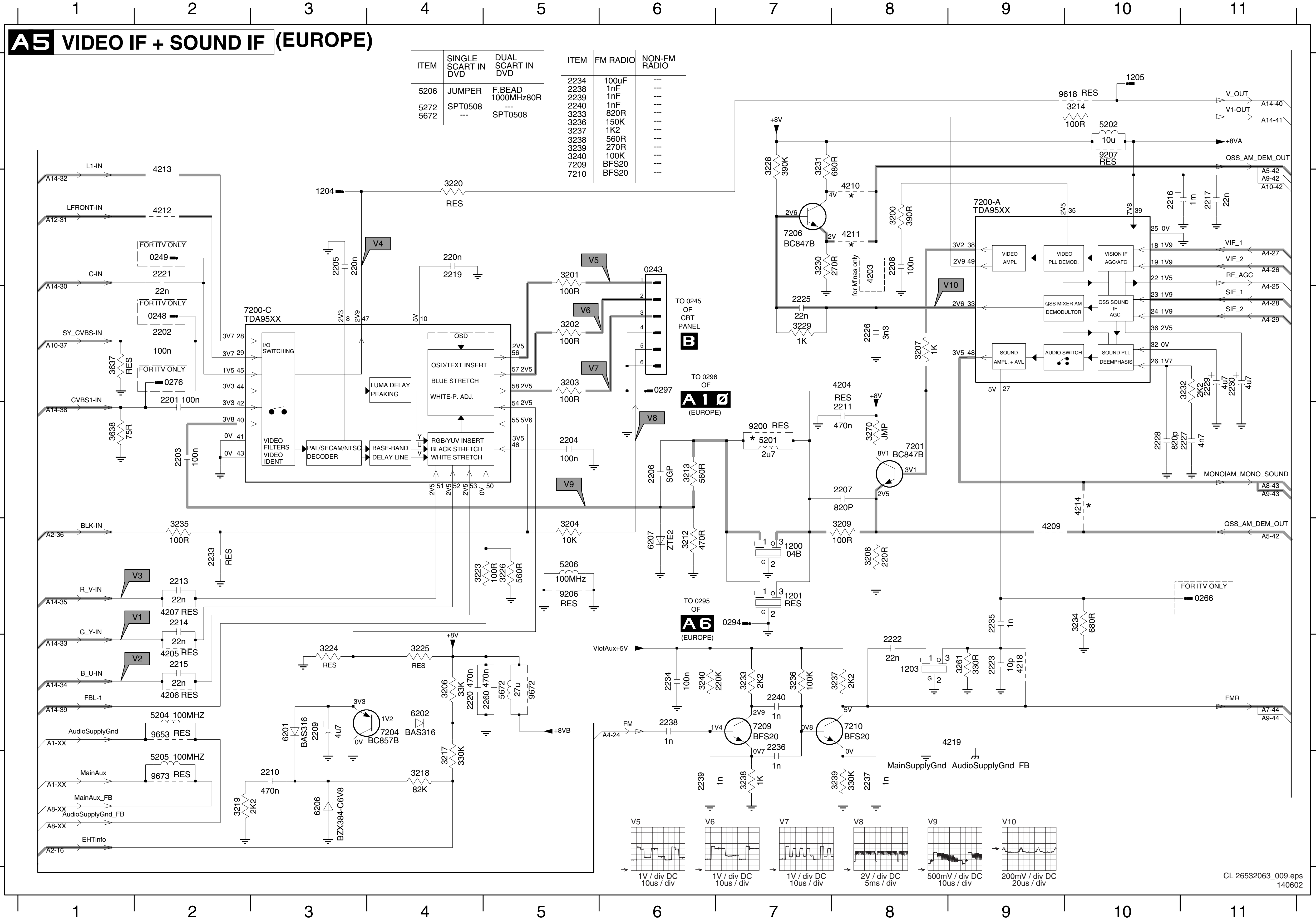
0265	A4
0283	B2
0285	B2
1000	A3
1002	D7
1003	E7
1004	F7
2001	C3
2002	C4
2003	D5
2004	B5
2005	A5
2006	B6
2007	B6
2008	C5
2009	C8
2010	A4
3000	C3
3001	C3
3002	C6
3003	B7
3004	C7
3005	C8
3006	D5
3007	D5
3008	D5
3009	D6
3010	D3
3011	D4
3012	A7
4001	D5
4002	E7
4003	E6
4004	E7
4005	D6
4006	D5
4007	B7
4011	F7
4012	F7
5001	A6
5002	C5
5003	F8
6001	A5
6002	B6
6003	C6
6004	D5
6005	D6
7001	E5
7002	E6
9001	D6

Mono Carrier: Video IF + Sound IF

A5 VIDEO IF + SOUND IF (EUROPE)

ITEM	SINGLE SCART IN DVD	DUAL SCART IN DVD
5206	JUMPER	F.BEAD 1000MHz80R
5272	SPT0508	---
5672	---	SPT0508

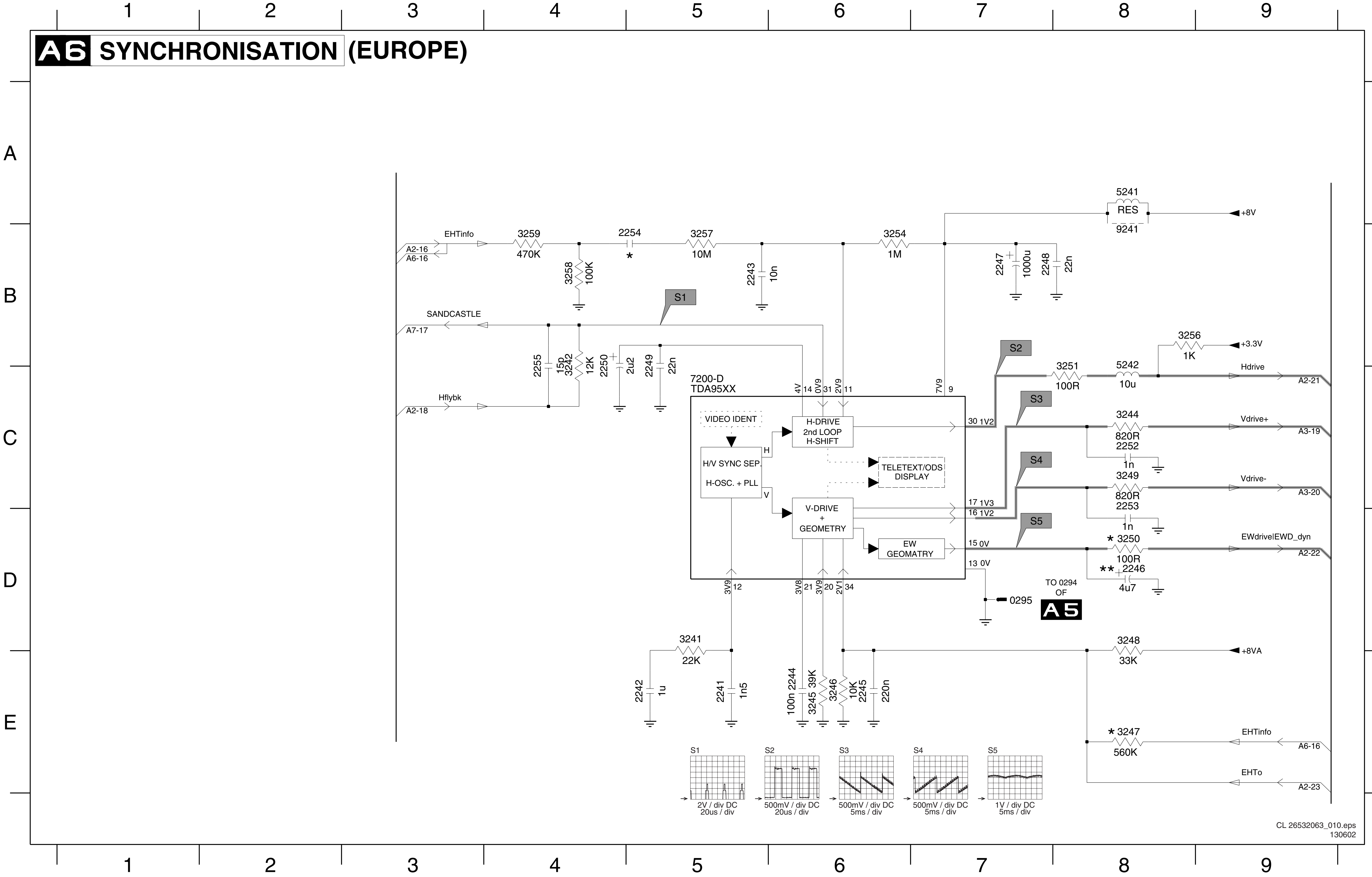
ITEM	FM RADIO	NON-FM RADIO
2234	100uF	---
2238	1nF	---
2239	1nF	---
2240	1nF	---
3233	820R	---
3236	150K	---
3237	1K2	---
3238	560R	---
3239	270R	---
3240	100K	---
7209	BFS20	---
7210	BFS20	---



1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
L1-IN
A14-32
4213
LFRONT-IN
A12-31
4212
FOR ITV ONLY
0249
C-IN
A14-30
2221
22n
0248
SY_CVBS-IN
A10-37
2202
100n
3637
RES
0276
CVBS1-IN
A14-38
2201 100n
3638
75R
2203
100n
1204
3220
RES
2205
220n
V4
220n
2219
7200-C
TDA95XX
I/O SWITCHING
VIDEO FILTERS VIDEO IDENT
PAL/SECAM/NTSC DECODER
BASE-BAND DELAY LINE
LUMA DELAY PEAKING
OSD
OSD/TEXT INSERT
BLUE STRETCH
WHITE-P. ADJ.
RGB/YUV INSERT
BLACK STRETCH
WHITE STRETCH
V5
3201
100R
V6
3202
100R
V7
3203
100R
V8
0243
TO 0245 OF CRT PANEL
B
0297
TO 0296 OF
A10
(EUROPE)
2204
100n
V9
BLK-IN
A2-36
3235
100R
2233
RES
3204
10K
V3
R_V-IN
A14-35
2213
22n
4207 RES
V1
G_Y-IN
A14-33
2214
22n
4205 RES
V2
B_U-IN
A14-34
2215
22n
4206 RES
FBL-1
A14-39
5204 100MHZ
9653 RES
AudioSupplyGnd
A1-XX
5205 100MHZ
9673 RES
MainAux
MainAux_FB
A8-XX
AudioSupplyGnd_FB
EHTinfo
A2-16
3223
100R
3226
560R
5206
100MHz
9206
RES
3224
RES
3225
RES
+8V
3206
33K
2220
470n
2260
470n
5672
27u
9672
+8VB
6201
BAS316
2209
4u7
7204
BC857B
6202
BAS316
3217
330K
2210
470n
3218
82K
3219
2K2
6206
BZX384-C6V8
2206
SGP
3213
560R
6207
ZTE2
3212
470R
9200 RES
5201
2u7
1200
04B
1201
RES
TO 0295 OF
A6
(EUROPE)
0294
VlotAux+5V
FM
A4-24
2238
1n
2234
100n
3240
220K
3233
2K2
7209
BFS20
2240
1n
2236
1n
3236
100K
3237
2K2
7210
BFS20
2239
1n
3238
1K
3239
330K
2237
1n
4219
MainSupplyGnd
AudioSupplyGnd_FB
+8V
3228
390K
3231
680R
4210
7206
BC847B
4211
3230
270R
4203
for M'nas only
3200
390R
2208
100n
2225
22n
3229
1K
2226
3n3
V10
3207
1K
4204
RES
2211
470n
3270
JMP
7201
BC847B
2207
820P
3209
100R
3208
220R
4209
4214
2222
22n
1203
3261
330R
2223
10p
4218
2235
1n
3234
680R
FOR ITV ONLY
0266
9618 RES
1205
3214
100R
5202
10u
9207
RES
V_OUT
A14-40
V1-OUT
A14-41
+8VA
QSS_AM_DEM_OUT
A5-42
A9-42
A10-42
7200-A
TDA95XX
VIDEO AMPL
VIDEO PLL DEMOD.
VISION IF AGC/AFC
QSS MIXER AM DEMODULATOR
QSS SOUND IF AGC
SOUND AMPL. + AVL
AUDIO SWITCH
SOUND PLL DEEMPHASIS
2216
1m
2217
22n
VIF_1
A4-27
VIF_2
A4-26
RF_AGC
A4-25
SIF_1
A4-28
SIF_2
A4-29
3232
2K2
2229
4u7
2230
4u7
2228
820p
2227
4n7
MONO|AM_MONO_SOUND
A8-43
A9-43
QSS_AM_DEM_OUT
A5-42
FMR
A7-44
A9-44
V5
1V / div DC
10us / div
V6
1V / div DC
10us / div
V7
1V / div DC
10us / div
V8
2V / div DC
5ms / div
V9
500mV / div DC
10us / div
V10
200mV / div DC
20us / div
CL 26532063_009.eps
140602

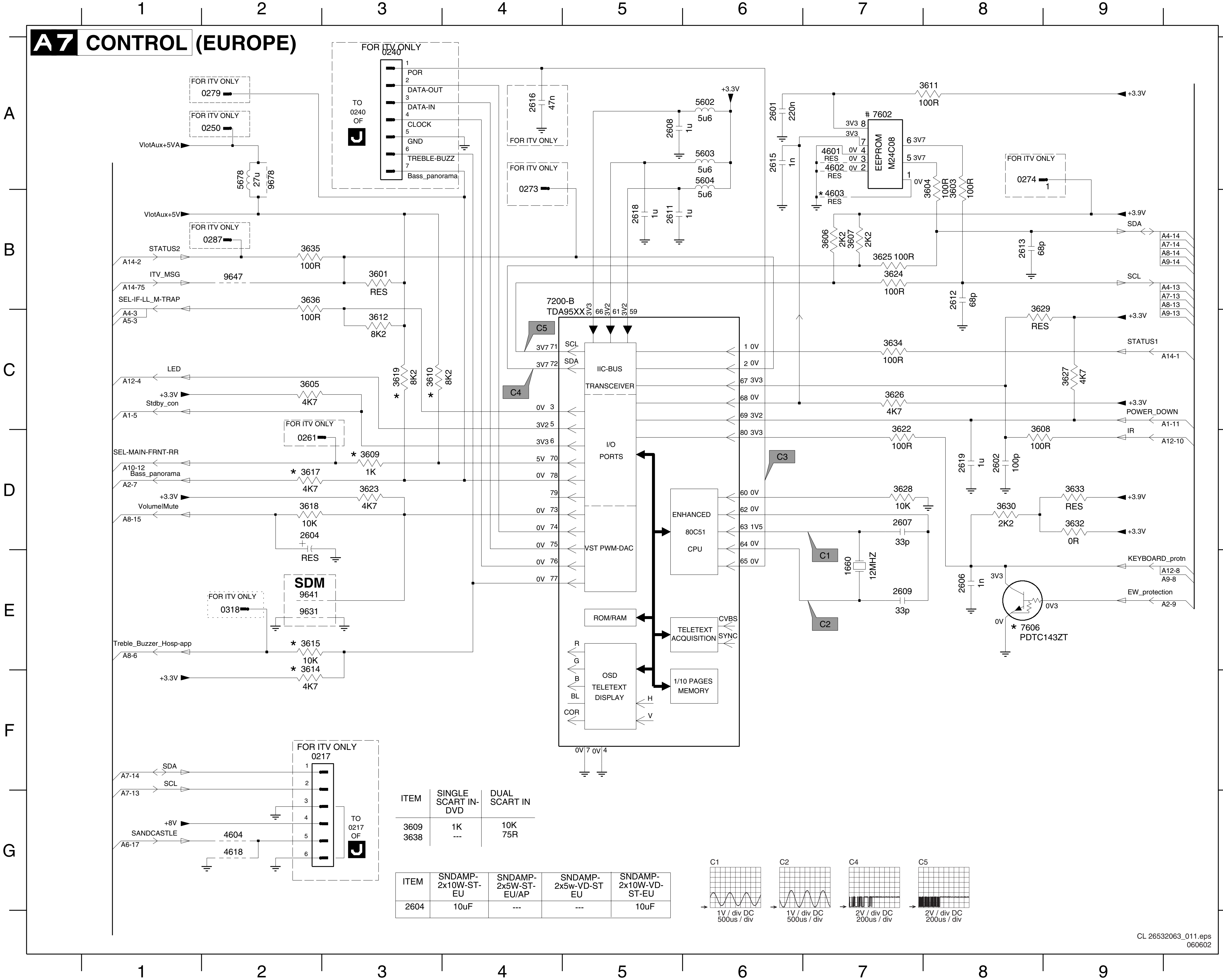
0243	B6
0248	C2
0249	B2
0266	E11
0276	C2
0294	E7
0297	C6
1200	E7
1201	E7
1203	F8
1204	B3
1205	A10
2201	D2
2202	C2
2203	D2
2204	D5
2205	B3
2206	D6
2207	D8
2208	B8
2209	F3
2210	G3
2211	D8
2213	E2
2214	E2
2215	F2
2216	B10
2217	B11
2219	B4
2220	F4
2221	B2
2222	F8
2223	F9
2225	C7
2226	C8
2227	D11
2228	D10
2229	C11
2230	C11
2233	E2
2234	F6
2235	E9
2236	F7
2237	G8
2238	F6
2239	G6
2240	F7
2260	F5
3200	B8
3201	B5
3202	C5
3203	C5
3204	E5
3206	F4
3207	C8
3208	E8
3209	E8
3212	E6
3213	D6
3214	A10
3217	G4
3218	G4
3219	G2
3220	B4
3223	E4
3224	F3
3225	F4
3226	E5
3228	A7
3229	C7
3230	B7
3231	A7
3232	C11
3233	F7
3234	E10
3235	E2
3236	F7
3237	F8
3238	G7
3239	G8
3240	F6
3261	F9
3270	D8
3637	C1
3638	D1
4203	B8
4204	C8
4205	F2
4206	F2
4207	E2
4209	E9
4210	B8
4211	B8
4212	B2
4213	A2
4214	D10
4218	F9
4219	F9
5201	D7
5202	A10
5204	F2
5205	G2
5206	E5
5672	F5
6201	F3
6202	F4
6206	G3
6207	E6
7200-A	B9
7200-C	C3
7201	D8
7204	F4
7206	B7
7209	F7
7210	F8
9200	D7
9206	E5
9207	A10
9618	A10
9653	F2
9672	F5
9673	G2

Mono Carrier: Synchronisation


A6 SYNCHRONISATION (EUROPE)
1 2 3 4 5 6 7 8 9
A B C D E
EHTinfo
A2-16
A6-16
3259 470K
2254 *
3257 10M
3254 1M
5241 RES 9241
+8V
3258 100K
2243 10n
2247 1000u
2248 22n
SANDCASTLE
A7-17
S1
2255 15p
3242 12K
2250 2u2
2249 22n
Hflybk
A2-18
7200-D TDA95XX
4V 14 0V9 31 2V9 11 7V9 9
VIDEO IDENT
H/V SYNC SEP.
H-OSC. + PLL
H
V
H-DRIVE 2nd LOOP H-SHIFT
TELETEXT/ODS DISPLAY
V-DRIVE + GEOMETRY
EW GEOMATRY
30 1V2
17 1V3
16 1V2
15 0V
13 0V
3V9 12 3V8 21 3V9 20 2V1 34
S2
3251 100R
5242 10u
3256 1K
+3.3V
Hdrive
A2-21
S3
3244 820R
2252 1n
Vdrive+
A3-19
S4
3249 820R
2253 1n
Vdrive-
A3-20
S5
* 3250 100R
** 2246 4u7
EWdrive|EWD_dyn
A2-22
TO 0294 OF A5
0295
3241 22K
2242 1u
2241 1n5
2244 100n
3245 39K
3246 10K
2245 220n
3248 33K
+8VA
* 3247 560K
EHTinfo
A6-16
EHTo
A2-23
S1 2V / div DC 20us / div
S2 500mV / div DC 20us / div
S3 500mV / div DC 5ms / div
S4 500mV / div DC 5ms / div
S5 1V / div DC 5ms / div
CL 26532063_010.eps 130602

0295	D7
2241	E5
2242	E5
2243	B5
2244	E6
2245	E6
2246	D8
2247	B7
2248	B7
2249	B5
2250	B4
2252	C8
2253	C8
2254	B5
2255	B4
3241	D5
3242	B4
3244	C8
3245	E6
3246	E6
3247	E8
3248	D8
3249	C8
3250	D8
3251	C8
3254	B6
3256	B8
3257	B5
3258	B4
3259	B4
5241	A8
5242	C8
7200-D	C5
9241	B8

Mono Carrier: Control

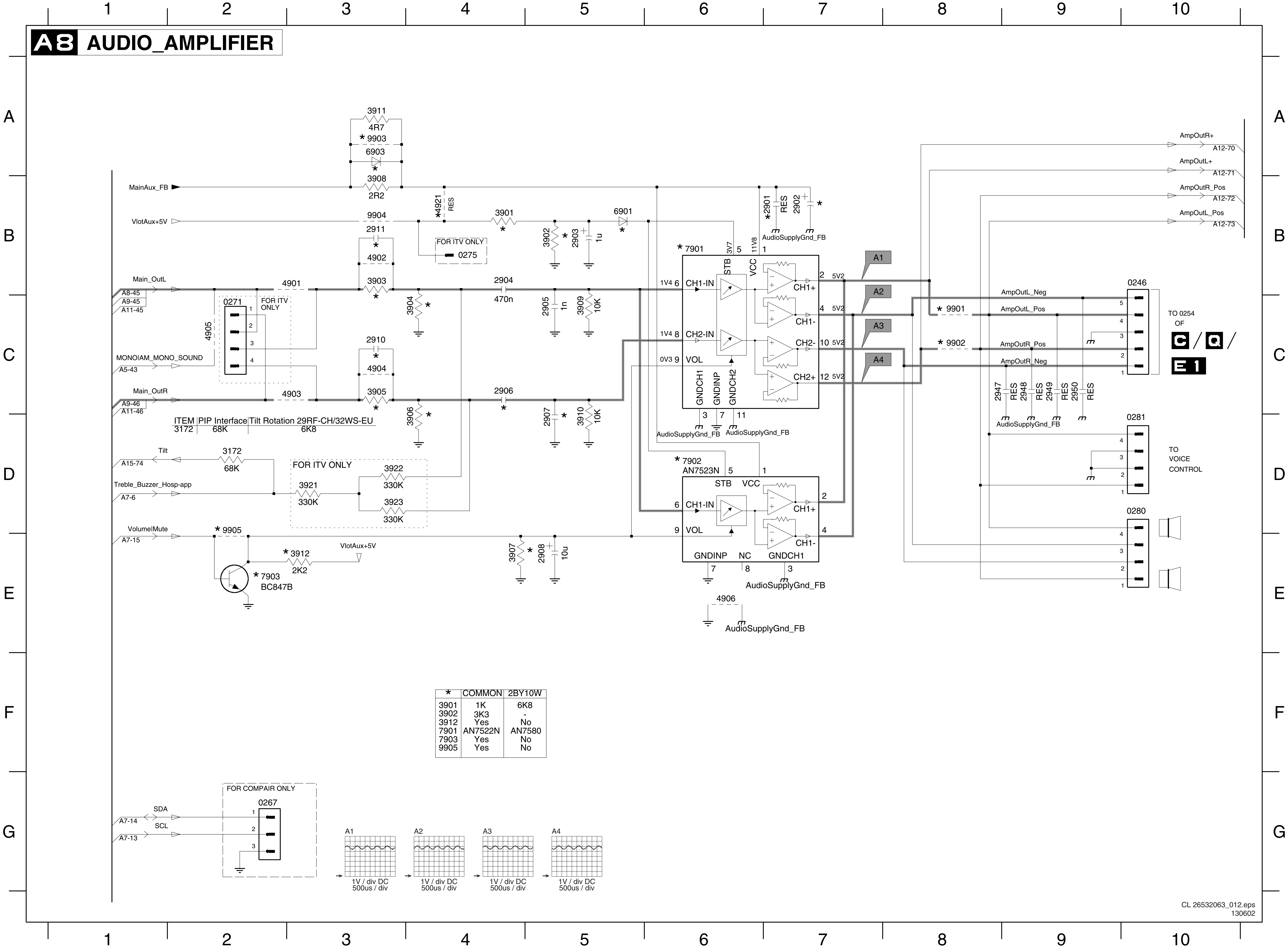

A7 CONTROL (EUROPE)
FOR ITV ONLY
0240
TO 0240 OF J
POR
DATA-OUT
DATA-IN
CLOCK
GND
TREBLE-BUZZ
Bass_panorama
0279
0250
0287
0261
0273
0274
0318
0217
VlotAux+5VA
VlotAux+5V
5678 27u 9678
STATUS2
ITV_MSG
SEL-IF-LL_M-TRAP
LED
Stdby_con
SEL-MAIN-FRNT-RR
Bass_panorama
VolumeMute
Treble_Buzzer_Hosp-app
SDA
SCL
+8V
SANDCASTLE
SDM
9641
9631
4604
4618
3635 100R
9647
3601 RES
3636 100R
3612 8K2
3619 8K2
3610 8K2
3605 4K7
3609 1K
3617 4K7
3623 4K7
3618 10K
2604 RES
3615 10K
3614 4K7
2616 47n
2608 1u
5602 5u6
5603 5u6
5604 5u6
2618 1u
2611 1u
2601 220n
2615 1n
7200-B TDA95XX
IIC-BUS TRANSCEIVER
I/O PORTS
VST PWM-DAC
ENHANCED 80C51 CPU
ROM/RAM
TELETEXT ACQUISITION
CVBS
SYNC
OSD TELETEXT DISPLAY
1/10 PAGES MEMORY
R G B BL COR H V
C1 C2 C3 C4 C5
7602 EEPROM M24C08
4601 RES
4602 RES
4603 RES
3611 100R
3604 100R
3603 100R
3606 2K2
3607 2K2
3625 100R
3624 100R
2613 68p
2612 68p
3629 RES
3634 100R
3627 4K7
3626 4K7
3622 100R
3608 100R
2619 1u
2602 100p
3628 10K
2607 33p
1660 12MHZ
2609 33p
3630 2K2
3633 RES
3632 0R
2606 1n
7606 PDTC143ZT
+3.3V
+3.9V
STATUS1
POWER_DOWN
IR
KEYBOARD_protn
EW_protection
A14-2 A14-75 A4-3 A5-3 A12-4 A1-5 A10-12 A2-7 A8-15 A8-6 A7-14 A7-13 A6-17
A4-14 A7-14 A8-14 A9-14 A4-13 A7-13 A8-13 A9-13 A14-1 A1-11 A12-10 A12-8 A9-8 A2-9
1V / div DC 500us / div
2V / div DC 200us / div
CL 26532063_011.eps
060602

ITEM	SINGLE SCART IN-DVD	DUAL SCART IN
3609	1K	10K
3638	---	75R

ITEM	SNDAMP-2x10W-ST-EU	SNDAMP-2x5W-ST-EU/AP	SNDAMP-2x5w-VD-ST EU	SNDAMP-2x10W-VD-ST-EU
2604	10uF	---	---	10uF

0217	F2
0240	A3
0250	A1
0261	D2
0273	B4
0274	A8
0279	A1
0287	B2
0318	E2
1660	E7
2601	A6
2602	D8
2604	D2
2606	E8
2607	D7
2608	A5
2609	E7
2611	B5
2612	B8
2613	B8
2615	A6
2616	A4
2618	B5
2619	D8
3601	B3
3603	A8
3604	A8
3605	C2
3606	B7
3607	B7
3608	D8
3609	D3
3610	C3
3611	A8
3612	C3
3614	F2
3615	E2
3617	D2
3618	D2
3619	C3
3622	D7
3623	D3
3624	B7
3625	B7
3626	C7
3627	C9
3628	D7
3629	C8
3630	D8
3632	D9
3633	D9
3634	C7
3635	B2
3636	B2
4601	A7
4602	A7
4603	B7
4604	G2
4618	G2
5602	A6
5603	A6
5604	A6
5678	A2
7200-B	B4
7602	A7
7606	E8
9631	E2
9641	E2
9647	B2
9678	A2

Mono Carrier: Audio Amplifier


A8 AUDIO_AMPLIFIER
1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
MainAux_FB
VlotAux+5V
Main_OutL
A8-45
A9-45
A11-45
MONO|AM_MONO_SOUND
A5-43
Main_OutR
A9-46
A11-46
Tilt
A15-74
Treble_Buzzer_Hosp-app
A7-6
Volume|Mute
A7-15
SDA
SCL
A7-14
A7-13
FOR COMPAIR ONLY
0267
3911
4R7
9903
6903
3908
2R2
9904
2911
4902
3903
4901
0271
FOR ITV ONLY
4905
2910
4904
3905
4903
3904
3906
4921
RES
FOR ITV ONLY
0275
3901
3902
2903
1u
6901
2904
470n
2905
1n
3909
10K
2906
2907
3910
10K
3172
68K
FOR ITV ONLY
3921
330K
3922
330K
3923
330K
9905
3912
2K2
VlotAux+5V
7903
BC847B
3907
2908
10u
7901
3V7
11V8
STB
VCC
CH1-IN
CH2-IN
VOL
1V4
0V3
CH1+
CH1-
CH2-
CH2+
5V2
GNDCH1
GNDINP
GNDCH2
2901
RES
2902
AudioSupplyGnd_FB
7902
AN7523N
NC
4906
A1
A2
A3
A4
9901
9902
AmpOutR+
A12-70
AmpOutL+
A12-71
AmpOutR_Pos
A12-72
AmpOutL_Pos
A12-73
0246
AmpOutL_Neg
AmpOutL_Pos
AmpOutR_Pos
AmpOutR_Neg
TO 0254 OF
C / Q / E 1
2947
2948
2949
2950
0281
TO VOICE CONTROL
0280
1V / div DC
500us / div
CL 26532063_012.eps
130602

ITEM	PIP Interface	Tilt Rotation 29RF-CH/32WS-EU
3172	68K	6K8

*	COMMON	2BY10W
3901	1K	6K8
3902	3K3	-
3912	Yes	No
7901	AN7522N	AN7580
7903	Yes	No
9905	Yes	No

0246	B10
0267	G2
0271	C2
0275	B4
0280	D10
0281	C10
2901	B7
2902	B7
2903	B5
2904	B4
2905	C5
2906	C4
2907	D5
2908	E5
2910	C3
2911	B3
2947	C8
2948	C9
2949	C9
2950	C9
3172	D2
3901	B4
3902	B5
3903	B3
3904	C4
3905	C3
3906	D4
3907	E4
3908	B3
3909	C5
3910	D5
3911	A3
3912	E3
3921	D3
3922	D3
3923	D3
4901	B3
4902	B3
4903	C3
4904	C3
4905	C2
4906	E6
4921	B4
6901	B5
6903	A3
7901	B6
7902	D6
7903	E2
9901	C8
9902	C8
9903	A3
9904	B3
9905	D2

Mono Carrier: Audio Amplifier Diversity Tables

Diversity Table For A 8 Audio Amplifier

ITEM	Mono Sets Or 2x1W-NA	2x10W-AP	Others
2902	220uF/50V	1000uF/25V	1000uF/16V

ITEM	With Stereo	W/O Stereo
4905	---	JUMPER

ITEM	Using 2K2 Chassis-2x10W	Using 2K2 Chassis-Non 2x10W
9905	---	JUMPER

ITEM	SNDAMP-2x10W-ST-EU	SNDAMP-2x5W-ST-EU/AP	SNDAMP-2x5w-VD-ST EU	SNDAMP-2x10W-VD-ST-EU
2902	1000uF/25V	1000uF/16V	1000uF/16V	1000uF/25V
2905	1nF	1nF	560pF	560pF
2907	1nF	1nF	560pF	560pF
2910	1nF	3K3	---	---
2911	1nF	3n3	---	---
2950	---	330pF	---	---
3901	6K8	1K	1K	6K8
3902	---	3K3	3K3	---
3903	82K	3K3	12K	82K
3904	---	10K	10K	---
3905	8K2	3K3	12K	82K
3906	---	10K	10K	---
3907	---	6K8	6K8	---
3909	27K	---	---	27K
3910	27K	---	---	27K
3912	820R	---	---	820R
4905	---	---	---	---
7901	AN7580	AN7522N	AN7522N	AN7580
7902	---	---	---	---
7903	BC857B	---	---	BC857B
9905	---	JMP	JMP	---
9923	JMP	---	---	JMP

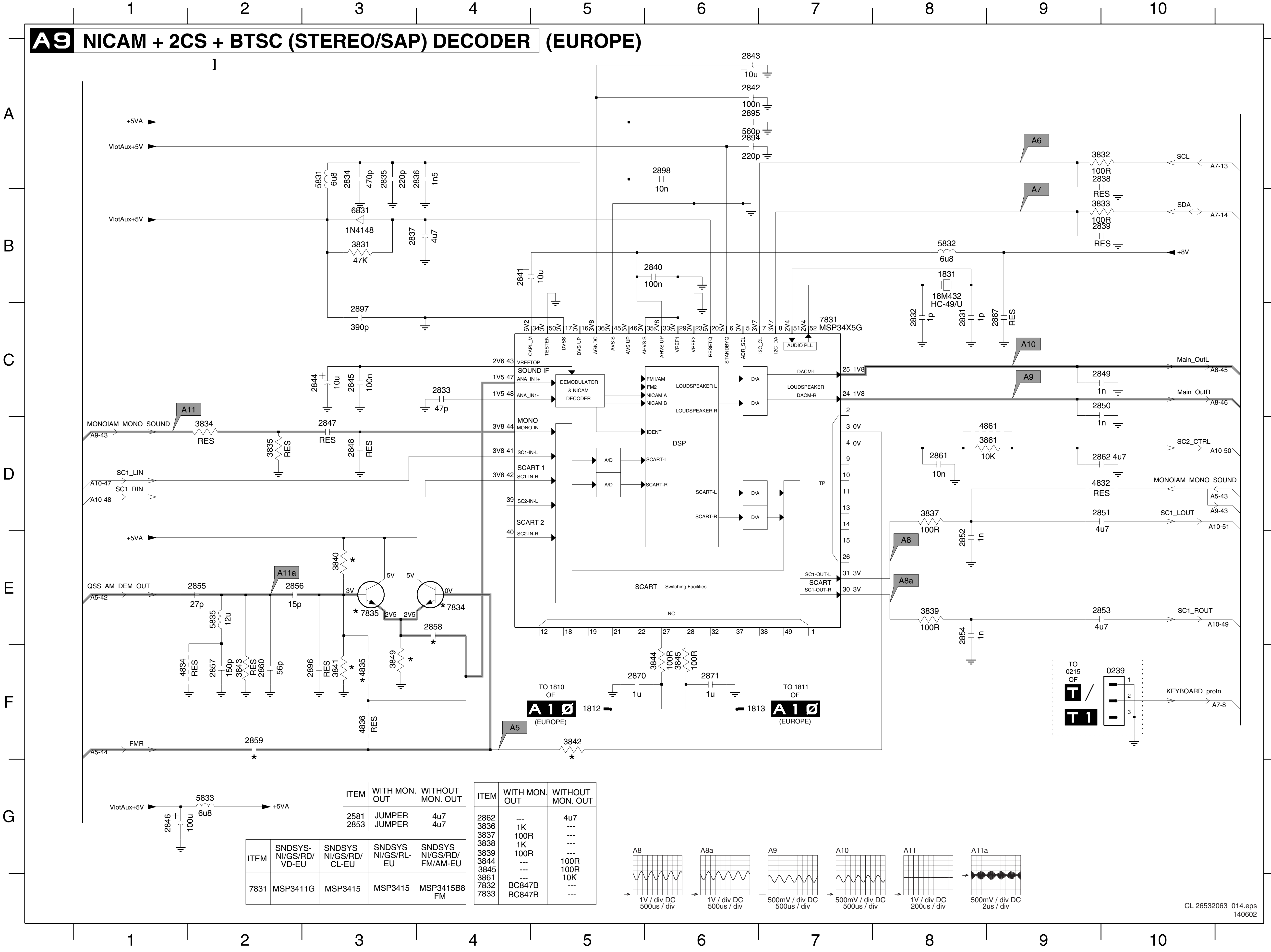
ITEM	SNDAMP-1x1W-MN-GL	SNDAMP-2x1W-ST-EU/AP	SNDAMP-1x3W-NA/LA	SNDAMP-2x10W-ST-AP	SNDAMP-2x3W-ST-NA	SNDAMP-2x5W-ST-EU/AP	SNDAMP-2x5W-ST-IND-MKII	SNDAMP-2x5W-ST-LA	SNDAMP-2x1W-NA	SNDAMP-2x5W-LA
2904	470nF	470nF	470nF	470nF	470nF	470nF	470nF	470nF	470nF	470nF
2905	1nF	1nF	1nF	1nF	1nF	1nF	1nF	1nF	1nF	1nF
2906	---	470nF	---	470nF	470nF	470nF	470nF	470nF	470nF	470nF
2907	---	1nF	---	1nF	1nF	1nF	1nF	1nF	1nF	1nF
2910	---	3n3	---	1nF	3n3	3n3	3n3	3n3	3n3	3n3
2911	---	3n3	---	1nF	3n3	3n3	3n3	3n3	3n3	3n3
2950	330nF	330pF	330pF	---	330pF	330pF	330pF	330pF	330pF	330pF
3901	1K	1K	1K	6K8	1K	1K	1K	1K	1K	1K
3902	3K3	3K3	3K3	---	3K3	3K3	3K3	3K3	3K3	3K3
3903	18K	3K3	18K	22K	3K3	3K3	3K3	3K3	3K3	3K3
3904	8K2	10K	10K	---	10K	10K	10K	10K	10K	10K
3905	---	3K3	---	22K	3K3	3K3	3K3	3K3	3K3	3K3
3906	---	10K	---	---	10K	10K	10K	10K	10K	10K
3907	8K2	6K8	8K2	8K2	8K2	6K8	6K8	8K2	8K2	8K2
3909	---	---	---	27K	---	---	---	---	---	---
3910	---	---	---	27K	---	---	---	---	---	---
3912	---	---	---	2K2	---	---	---	---	---	---
6903	1N5062	---	---	---	---	---	---	---	1N5062	---
7901	---	AN7522	---	AN7580	AN7522	AN7522	AN7522 PH	AN7522	AN7522	AN7522
7902	AN7523	---	AN7523	---	---	---	---	---	---	---
7903	---	---	---	BC847B	---	---	---	---	---	---
9903	---	JMP	JMP	JMP	JMP	JMP	JMP	JMP	---	JMP
9914	JMP	JMP	JMP	JMP	JMP	JMP	JMP	JMP	JMP	JMP
9916	JMP	JMP	JMP	JMP	JMP	JMP	JMP	JMP	JMP	JMP
9923	---	---	---	JMP	---	---	---	---	---	---

ITEM	SNDAMP-2x3W-LA	SNDAMP-2x1W-NA	SNDAMP-2x3W-ST-NA	SNDAMP-2x5W-ST-AP	SNDAMP-2x3W-ST-NDBX-NA/LA	SNDAMP-2x5W-ST+WOOFER-IND	SNDAMP-1x4W-MN-AP
2904	470nF	470nF	470nF	470nF	27nF	47nF	470pF
2905	1nF	1nF	1nF	1nF	1n2	1nF	1nF
2906	470nF	470nF	470nF	470nF	27nF	47nF	---
2907	1nF	1nF	1nF	1nF	1n2	1nF	---
2910	3n3	3n3	3n3	3n3	10nF	10nF	---
2911	3n3	3n3	3n3	3n3	10nF	10nF	---
2950	330pF	330pF	330pF	330pF	330pF	330pF	330pF
3901	1K	1K	1K	1K	1K	1K	1K
3902	3K3	3K3	3K3	3K3	3K3	3K3	3K3
3903	3K3	3K3	3K3	3K3	3K3	8K2	18K
3904	10K	10K	10K	10K	10K	10K	10K
3905	3K3	3K3	3K3	3K3	3K3	8K2	---
3906	10K	10K	10K	10K	10K	10K	---
3907	8K2	8K2	8K2	6K8	8K2	6K8	8K2
3909	---	---	---	---	---	---	---
3910	---	---	---	---	---	---	---
3912	---	---	---	---	---	---	---
6903	---	1N5062	---	---	---	---	---
7901	AN7522	AN7522	AN7522	AN7522	AN7522	AN7522 PH	---
7902	---	---	---	---	---	---	AN7523 PH
7903	---	---	---	---	---	---	---
9903	JMP	---	JMP	JMP	JMP	JMP	JMP
9914	JMP	JMP	JMP	JMP	JMP	JMP	---
9916	JMP	JMP	JMP	JMP	JMP	JMP	---
9923	---	---	---	---	---	---	---

CL 26532063_013.eps
210502

Personal Notes:

Mono Carrier: NICAM + 2CS + BTSC (Stereo / SAP) Decoder


A9 NICAM + 2CS + BTSC (STEREO/SAP) DECODER (EUROPE)
7831 MSP34X5G
SOUND IF
DEMODULATOR & NICAM DECODER
DSP
LOUDSPEAKER L
LOUDSPEAKER R
D/A
A/D
AUDIO PLL
MONO
SCART 1
SCART 2
SCART Switching Facilities
NC
TP
+5VA
VlotAux+5V
+8V
SCL
SDA
Main_OutL
Main_OutR
SC2_CTRL
MONO\AM_MONO_SOUND
SC1_LOUT
SC1_ROUT
SC1_LIN
SC1_RIN
QSS_AM_DEM_OUT
FMR
KEYBOARD_protn
TO 1810 OF A10 (EUROPE)
TO 1811 OF A10 (EUROPE)
TO 0215 OF T / T1
0239
1831 18M432 HC-49/U
6831 1N4148
7834
7835
A5
A6
A7
A8
A8a
A9
A10
A11
A11a
1V / div DC 500us / div
1V / div DC 500us / div
500mV / div DC 500us / div
500mV / div DC 500us / div
1V / div DC 200us / div
500mV / div DC 2us / div
CL 26532063_014.eps 140602

ITEM	WITH MON. OUT	WITHOUT MON. OUT
2581	JUMPER	4u7
2853	JUMPER	4u7

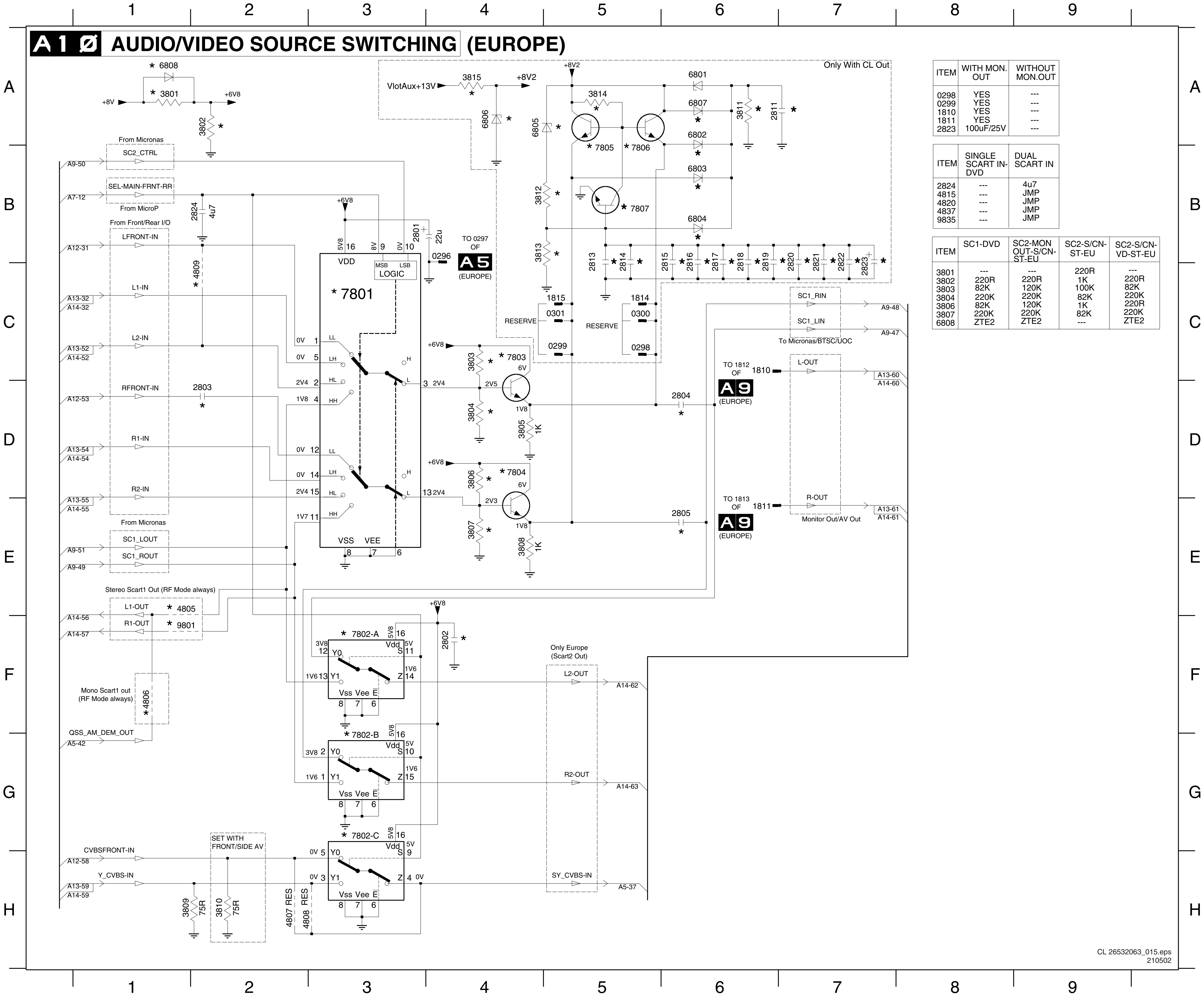
ITEM	SNDSYS-NI/GS/RD/VD-EU	SNDSYS NI/GS/RD/CL-EU	SNDSYS NI/GS/RL-EU	SNDSYS NI/GS/RD/FM/AM-EU
7831	MSP3411G	MSP3415	MSP3415	MSP3415B8 FM

ITEM	WITH MON. OUT	WITHOUT MON. OUT
2862	---	4u7
3836	1K	---
3837	100R	---
3838	1K	---
3839	100R	---
3844	---	100R
3845	---	100R
3861	---	10K
7832	BC847B	---
7833	BC847B	---

0239	F10
1812	F5
1813	F7
1831	B8
2831	C8
2832	C8
2833	C4
2834	A3
2835	A3
2836	A4
2837	B3
2838	A10
2839	B10
2840	B6
2841	B4
2842	A6
2843	A6
2844	C3
2845	C3
2846	G1
2847	D3
2848	D3
2849	C10
2850	C10
2851	D10
2852	E8
2853	E10
2854	E8
2855	E2
2856	E2
2857	F2
2858	E4
2859	F2
2860	F2
2861	D8
2862	D10
2870	F5
2871	F6
2887	C9
2894	A6
2895	A6
2896	F3
2897	C3
2898	A6
3831	B3
3832	A10
3833	B10
3834	D2
3835	D2
3837	D8
3839	E8
3840	E3
3841	F3
3842	F5
3843	F2
3844	F6
3845	F6
3849	F3
3861	D9
4832	D10
4834	F1
4835	F3
4836	F3
4861	D9
5831	A3
5832	B8
5833	G2
5835	E2
6831	B3
7831	C7
7834	E4
7835	E3

Mono Carrier: Audio / Video Source Switching

A1 Ø AUDIO/VIDEO SOURCE SWITCHING (EUROPE)


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
6808
3801
+8V
+6V8
3802
From Micronas
SC2_CTRL
A9-50
SEL-MAIN-FRNT-RR
A7-12
From MicroP
2824
4u7
From Front/Rear I/O
LFRONT-IN
A12-31
4809
L1-IN
A13-32
A14-32
L2-IN
A13-52
A14-52
RFRONT-IN
2803
A12-53
R1-IN
A13-54
A14-54
R2-IN
A13-55
A14-55
From Micronas
SC1_LOUT
SC1_ROUT
A9-51
A9-49
Stereo Scart1 Out (RF Mode always)
L1-OUT
R1-OUT
4805
9801
A14-56
A14-57
Mono Scart1 out (RF Mode always)
4806
QSS_AM_DEM_OUT
A5-42
CVBSFRONT-IN
A12-58
Y_CVBS-IN
A13-59
A14-59
SET WITH FRONT/SIDE AV
3809
75R
3810
75R
4807 RES
4808 RES
+6V8
VDD
7801
LOGIC
MSB
LSB
VSS
VEE
2801
22u
0296
TO 0297 OF
A5
(EUROPE)
VlotAux+13V
3815
+8V2
6806
6805
3814
7805
7806
7807
3812
3813
6801
6807
6802
6803
6804
3811
2811
2813
2814
2815
2816
2817
2818
2819
2820
2821
2822
2823
Only With CL Out
1815
0301
RESERVE
0299
1814
0300
RESERVE
0298
3803
7803
3804
3805
1K
3806
7804
3807
3808
1K
2804
2805
TO 1812 OF
1810
A9
(EUROPE)
TO 1813 OF
1811
A9
(EUROPE)
SC1_RIN
SC1_LIN
A9-48
A9-47
To Micronas/BTSC/UOC
L-OUT
R-OUT
A13-60
A14-60
A13-61
A14-61
Monitor Out/AV Out
7802-A
7802-B
7802-C
2802
Only Europe (Scart2 Out)
L2-OUT
R2-OUT
SY_CVBS-IN
A14-62
A14-63
A5-37
CL 26532063_015.eps
210502

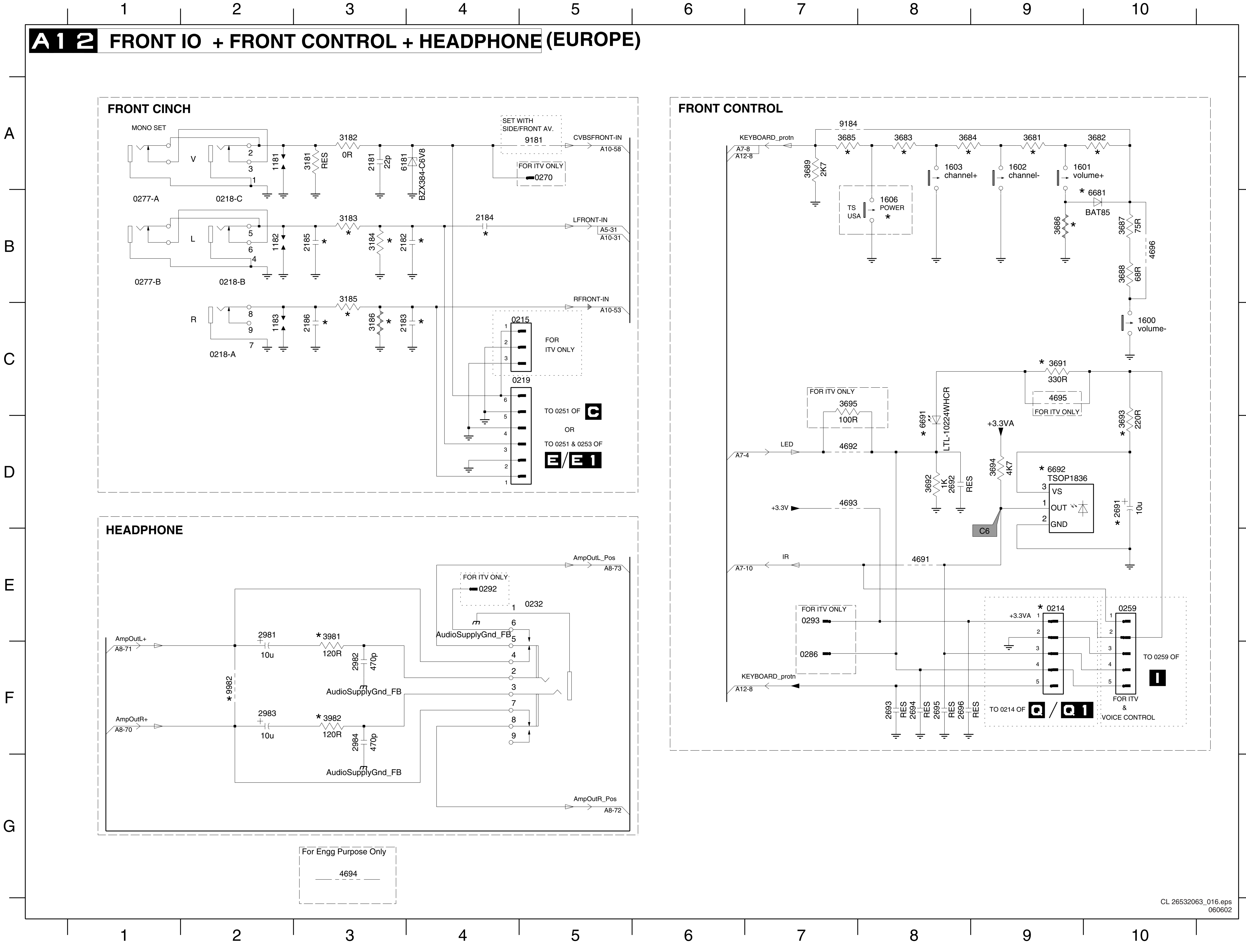
ITEM	WITH MON. OUT	WITHOUT MON.OUT
0298	YES	---
0299	YES	---
1810	YES	---
1811	YES	---
2823	100uF/25V	---

ITEM	SINGLE SCART IN-DVD	DUAL SCART IN
2824	---	4u7
4815	---	JMP
4820	---	JMP
4837	---	JMP
9835	---	JMP

ITEM	SC1-DVD	SC2-MON OUT-S/CN-ST-EU	SC2-S/CN-ST-EU	SC2-S/CN-VD-ST-EU
3801	---	---	220R	---
3802	220R	220R	1K	220R
3803	82K	120K	100K	82K
3804	220K	220K	82K	220K
3806	82K	120K	1K	220R
3807	220K	220K	82K	220K
6808	ZTE2	ZTE2	---	ZTE2

0296	B4
0298	C5
0299	C5
0300	C5
0301	C5
1810	C6
1811	E6
1814	C5
1815	C5
2801	B3
2802	F4
2803	D2
2804	D6
2805	E6
2811	A6
2813	B5
2814	B5
2815	B6
2816	B6
2817	B6
2818	B6
2819	B6
2820	B7
2821	B7
2822	B7
2823	C7
2824	B2
3801	A1
3802	A2
3803	C4
3804	D4
3805	D4
3806	D4
3807	E4
3808	E4
3809	H1
3810	H2
3811	A6
3812	B4
3813	B4
3814	A5
3815	A4
4805	E1
4806	F1
4807	H2
4808	H3
4809	C2
6801	A6
6802	A6
6803	B6
6804	B6
6805	A4
6806	A4
6807	A6
6808	A1
7801	C3
7802-A	F3
7802-B	G3
7802-C	G3
7803	C4
7804	D4
7805	B5
7806	B5
7807	B5
9801	F1

Mono Carrier: Front I/O + Front Control + Headphone


A12 FRONT IO + FRONT CONTROL + HEADPHONE (EUROPE)
1 2 3 4 5 6 7 8 9 10
A B C D E F G
FRONT CINCH
MONO SET
V
L
R
0277-A
0218-C
0277-B
0218-B
0218-A
1181
1182
1183
3181 RES
3182 0R
2181 22p
6181 BZX384-C6V8
2185
3183
3184
2182
2184
3185
2186
3186
2183
SET WITH SIDE/FRONT AV.
9181
CVBSFRONT-IN
A10-58
FOR ITV ONLY
0270
LFRONT-IN
A5-31
A10-31
RFRONT-IN
A10-53
0215
FOR ITV ONLY
0219
TO 0251 OF C
OR
TO 0251 & 0253 OF
E/E1
HEADPHONE
AmpOutL+
A8-71
AmpOutR+
A8-70
2981 10u
3981 120R
2982 470p
2983 10u
3982 120R
2984 470p
9982
AudioSupplyGnd_FB
FOR ITV ONLY
0292
0232
AmpOutL_Pos
A8-73
AmpOutR_Pos
A8-72
For Engg Purpose Only
4694
FRONT CONTROL
KEYBOARD_protn
A7-8
A12-8
9184
3685
3683
3684
3681
3682
3689 2K7
1603 channel+
1602 channel-
1601 volume+
TS USA
1606 POWER
6681 BAT85
3686
3687 75R
3688 68R
4696
1600 volume-
3691 330R
4695
FOR ITV ONLY
3695 100R
6691
LTL-10224WHCR
+3.3VA
3693 220R
LED
A7-4
4692
3692 1K
2692 RES
3694 4K7
6692 TSOP1836
VS
OUT
GND
2691 10u
+3.3V
4693
C6
IR
A7-10
4691
FOR ITV ONLY
0293
0286
KEYBOARD_protn
A12-8
2693 RES
2694 RES
2695 RES
2696 RES
0214
TO 0214 OF Q / Q1
0259
TO 0259 OF I
FOR ITV & VOICE CONTROL
CL 26532063_016.eps
060602

0214	E9
0215	C4
0218-A	C2
0218-B	B2
0218-C	B2
0219	C4
0232	E5
0259	E10
0270	A5
0277-A	B1
0277-B	B1
0286	F7
0292	E4
0293	E7
1181	A2
1182	B2
1183	C2
1600	C10
1601	A9
1602	A9
1603	A8
1606	B8
2181	A3
2182	B3
2183	C3
2184	B4
2185	B3
2186	C3
2691	D10
2692	D8
2693	F8
2694	F8
2695	F8
2696	F8
2981	E2
2982	F3
2983	F2
2984	F3
3181	A3
3182	A3
3183	B3
3184	B3
3185	B3
3186	C3
3681	A9
3682	A10
3683	A8
3684	A8
3685	A7
3686	B9
3687	B10
3688	B10
3689	A7
3691	C9
3692	D8
3693	D10
3694	D9
3695	C7
3981	E3
3982	F3
4691	E8
4692	D7
4693	D7
4694	G3
4695	C9
4696	B10
6181	A4
6681	B10
6691	D8
6692	D9
9181	A5
9184	A7
9982	F2

Mono Carrier: Front Control Diversity Tables

Diversity Table For A12 Front Control

For Front Control

ITEM	55K NA	55K LA	NON 55K NA	NON 55K LA	IR + LED NA	IR + LED LA	KEYBOARD+ IR + LED LA
0231	---	YES	---	YES	---	YES	YES
0239	---	---	---	---	YES	YES	---
1600	YES	YES	YES	YES	---	---	YES
1601	YES	YES	YES	YES	---	---	YES
1602	YES	YES	YES	YES	---	---	YES
1603	YES	YES	YES	YES	---	---	YES
1606	YES	---	YES	390	YES	---	---
3681	*180	*180	390	3K	---	---	390
3682	*270	*270	3K	560	---	---	3K3
3684	*390	*390	560	560	YES	---	560
3685	---	---	560	1K5	*1K5	---	560
3686	JMP	JMP	1K5	---	---	---	1K5
3687	*75	*75	---	---	---	---	---
3688	*68	*68	---	---	---	---	---
3689	*2K7	*2K7	---	---	---	---	---
4696	---	---	JMP	JMP	---	JMP	JMP
6681	---	---	BAT85	BAT85	---	---	BAT85
9184	---	YES	---	---	---	---	---
9500	---	---	YES	---	YES	---	---
9501	---	---	YES	---	YES	---	---

ITEM	SINGLE SCART IN-DVD	DUAL SCART IN
3609	1K	10K
3538	---	75R

* 1% TOLERENCE RESISTER

ITEM	KEYBOARD-IR+LED-GL	IR+LED-EU/LA/AP	TC.PNL+FI. PNL-INTERF EU/NA/AP	L2K2.FRNT 55K-NA	L2K2.FRNT 55K-LA	L2K2.FRNT NON-55K-NA	L2K2.FRNT NON-55K-LA	IR+LED.55K NA
0214	---	---	YES	---	---	---	---	---
0239	---	YES	YES	---	---	---	---	YES
1600	YES	---	---	YES	YES	YES	YES	---
1601	YES	---	---	YES	YES	YES	YES	---
1602	YES	---	---	YES	YES	YES	YES	---
1603	YES	---	---	YES	YES	YES	YES	---
1606	---	---	---	YES	---	YES	---	YES
2691	10uF	10uF	---	10uF	10uF	10uF	10uF	10uF
3681	390R	---	---	180R	180R	390R	390R	---
3682	3K3	---	---	270R	270R	3K3	3K3	---
3683	390R	---	---	390R	390R	390R	390R	---
3684	560R	---	---	390R	390R	560R	560R	---
3685	560R	---	---	---	---	560R	560R	1K5
3686	1K5	---	---	JUMPER	JUMPER	1K5	1K5	---
3687	---	---	---	75R	75R	---	---	---
3688	---	---	---	68R	68R	---	---	---
3689	---	---	---	2K7	2K7	---	---	---
3691	330R	330R	---	330R	330R	330R	330R	330R
3693	220R	220R	---	220R	220R	220R	220R	220R
4696	YES	---	---	---	---	YES	YES	---
6681	BAT85	---	---	---	---	BAT85	BAT85	---
6691	YES	YES	---	YES	YES	YES	YES	YES
6692	YES	YES	---	YES	YES	YES	YES	YES
9184	---	---	---	YES	YES	---	---	---

ITEM	SNDAMP-2x10W-ST-EU	SNDAMP-2x5W-ST-EU/AP	SNDAMP-2x5W-VD-ST-EU	SNDAMP-2x10W-VD-ST-EU
2604	10uF	---	---	10uF

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210502

Mono Carrier: Rear I/O SCART Diversity Table

DIVERSITY TABLE FOR A14 REAR I/O SCART

ITEM	SINGLE SCART IN-DVD	DUAL SCART IN
2131	---	390pF
2132	---	390pF
2133	---	4u7
2134	---	390pF
2135	---	390pF
2136	---	4u7
2137	---	390pF
2138	---	390pF
2139	---	4U7
2140	---	390pF
2141	---	390pF
2142	---	4u7
2143	---	330pF
2144	---	330pF
2145	---	22pF
2147	---	22pF
3121	75R	---
3131	---	150R
3132	---	220K
3133	---	150R
3134	---	47K
3135	---	150R
3136	---	220K
3138	---	47K
3139	---	27K
3140	---	6K8
3141	---	75R
3142	---	100R
3143	---	68R
3144	---	1K
3146	---	JMP
4105	JMP	---

ITEM	WITH MON. OUT	WITHOUT MON.OUT
2131	330pF	---
2152	4u7	---
2153	330pF	---
2154	4u7	---
3151	150R	---
3152	220K	---
3153	150R	---
3154	220K	---
7131	BC847B	---

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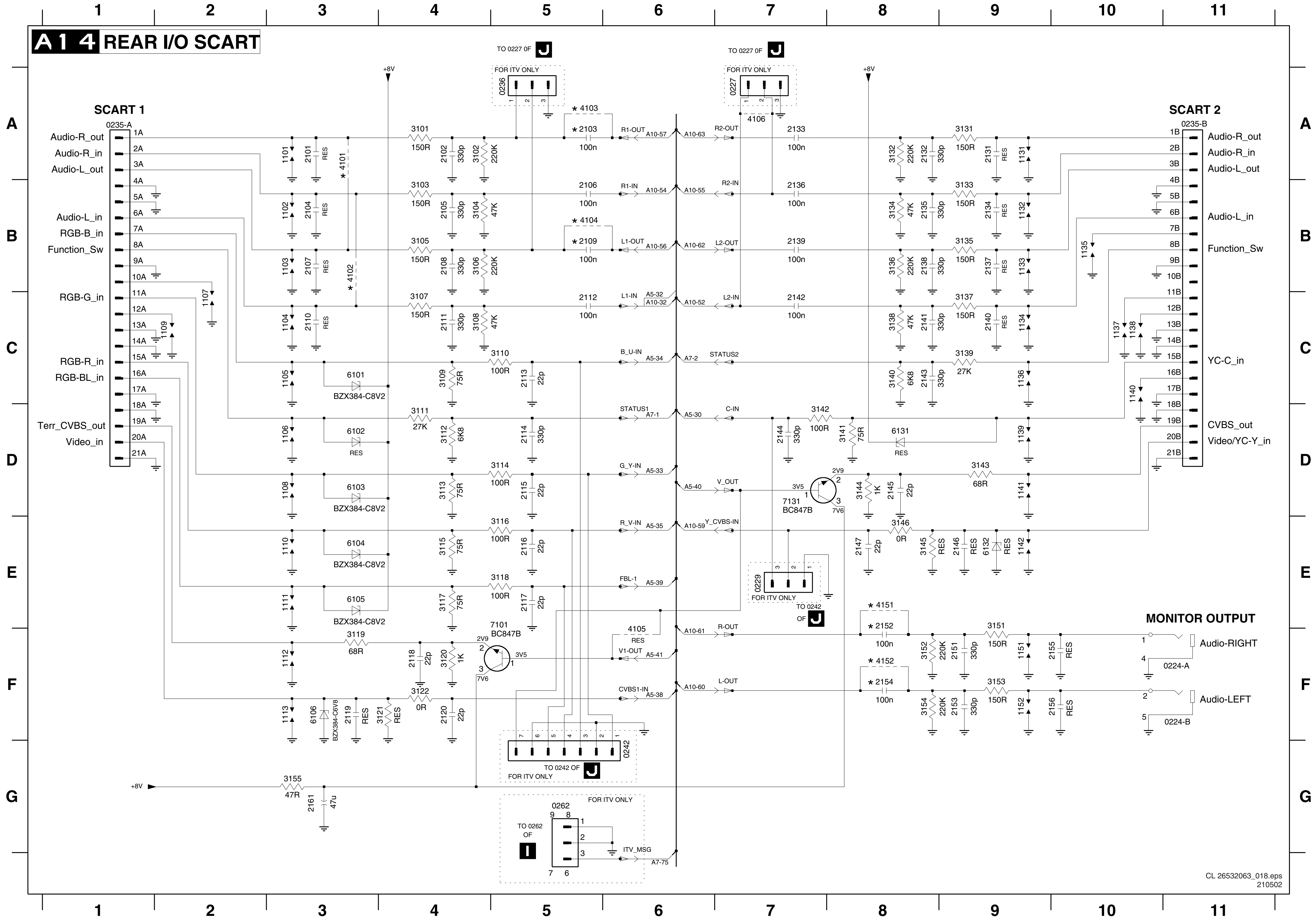
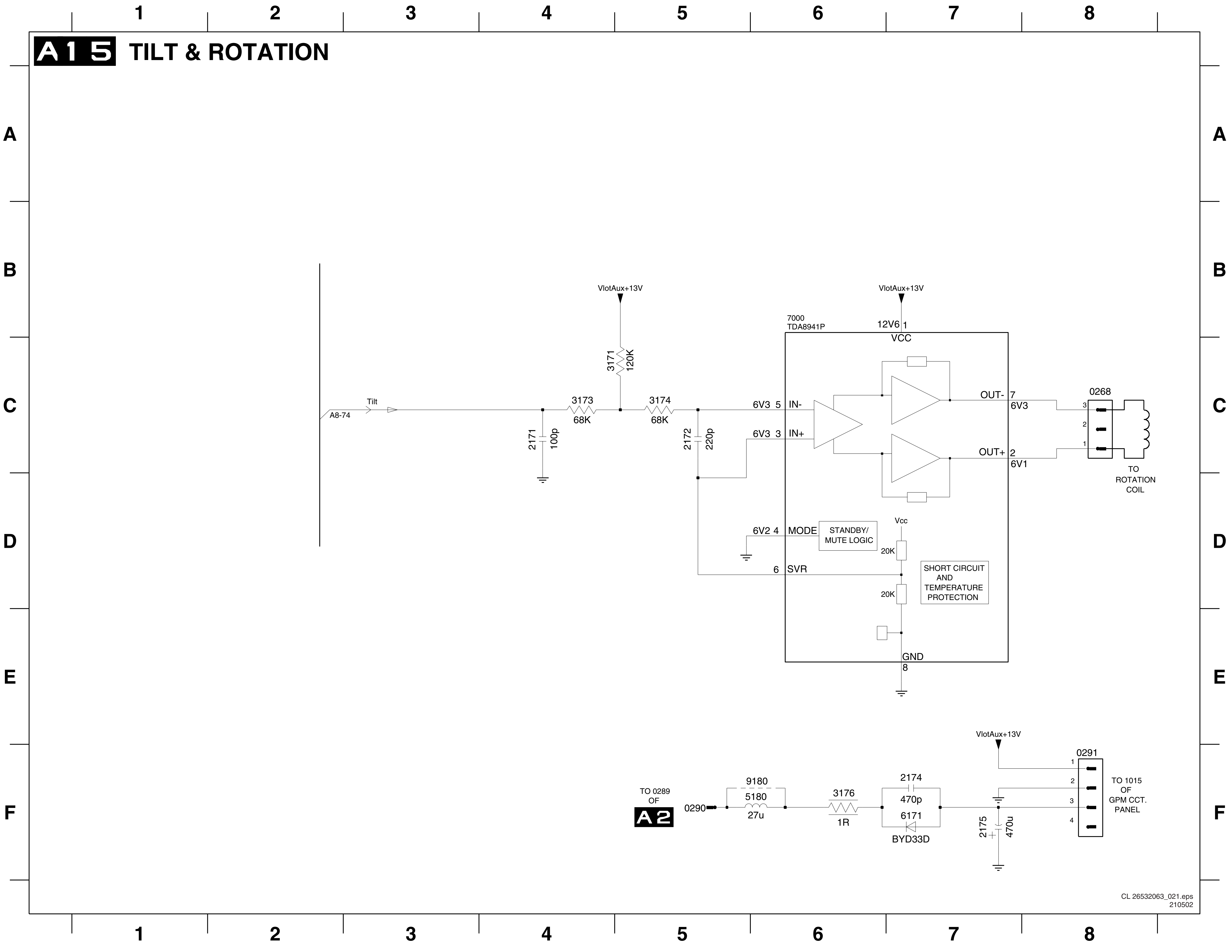
210502

Mono Carrier: Rear I/O SCART


A14 REAR I/O SCART
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
SCART 1
0235-A
Audio-R_out
Audio-R_in
Audio-L_out
Audio-L_in
RGB-B_in
Function_Sw
RGB-G_in
RGB-R_in
RGB-BL_in
Terr_CVBS_out
Video_in
1A
2A
3A
4A
5A
6A
7A
8A
9A
10A
11A
12A
13A
14A
15A
16A
17A
18A
19A
20A
21A
SCART 2
0235-B
Audio-R_out
Audio-R_in
Audio-L_out
Audio-L_in
Function_Sw
YC-C_in
CVBS_out
Video/YC-Y_in
1B
2B
3B
4B
5B
6B
7B
8B
9B
10B
11B
12B
13B
14B
15B
16B
17B
18B
19B
20B
21B
+8V
TO 0227 OF J
FOR ITV ONLY
0236
0227
4106
* 4103
* 2103
100n
* 4104
* 2109
100n
* 4101
* 4102
3101
150R
3103
150R
3105
150R
3107
150R
2102
330p
3102
220K
2105
330p
3104
47K
2108
330p
3106
220K
2111
330p
3108
47K
2106
100n
2112
100n
2101
2104
2107
2110
RES
1101
1102
1103
1104
1105
1106
1107
1108
1109
1110
1111
1112
1113
R1-OUT
A10-57
R1-IN
A10-54
L1-OUT
A10-56
L1-IN
A5-32
A10-32
B_U-IN
A5-34
STATUS1
A7-1
G_Y-IN
A5-33
R_V-IN
A5-35
FBL-1
A5-39
V1-OUT
A5-41
CVBS1-IN
A5-38
A10-63
R2-OUT
A10-55
R2-IN
A10-62
L2-OUT
A10-52
L2-IN
A7-2
STATUS2
A5-30
C-IN
A5-40
V_OUT
A10-59
Y_CVBS-IN
A10-61
R-OUT
A10-60
L-OUT
2133
100n
2136
100n
2139
100n
2142
100n
3131
150R
3133
150R
3135
150R
3137
150R
3139
27K
3132
220K
3134
47K
3136
220K
3138
47K
3140
6K8
2132
330p
2135
330p
2138
330p
2141
330p
2143
330p
2131
2134
2137
2140
1131
1132
1133
1134
1135
1136
1137
1138
1139
1140
1141
1142
3110
100R
3109
75R
2113
22p
6101
BZX384-C8V2
3111
27K
3112
6K8
2114
330p
6102
RES
3114
100R
3113
75R
2115
22p
6103
BZX384-C8V2
3116
100R
3115
75R
2116
22p
6104
BZX384-C8V2
3118
100R
3117
75R
2117
22p
6105
BZX384-C8V2
3119
68R
7101
BC847B
2V9
3V5
7V6
2118
22p
3120
1K
3122
0R
2120
22p
6106
BZX384-C6V8
2119
3121
4105
RES
3142
100R
2144
330p
3141
75R
6131
RES
7131
BC847B
3144
1K
2145
22p
3143
68R
2147
22p
3146
0R
3145
2146
6132
0229
FOR ITV ONLY
TO 0242 OF J
* 4151
* 2152
100n
* 4152
* 2154
100n
3151
150R
3153
150R
3152
220K
3154
220K
2151
330p
2153
330p
1151
1152
2155
2156
MONITOR OUTPUT
Audio-RIGHT
Audio-LEFT
0224-A
0224-B
0242
TO 0242 OF J
FOR ITV ONLY
3155
47R
2161
47u
+8V
0262
TO 0262 OF I
FOR ITV ONLY
ITV_MSG
A7-75
CL 26532063_018.eps
210502

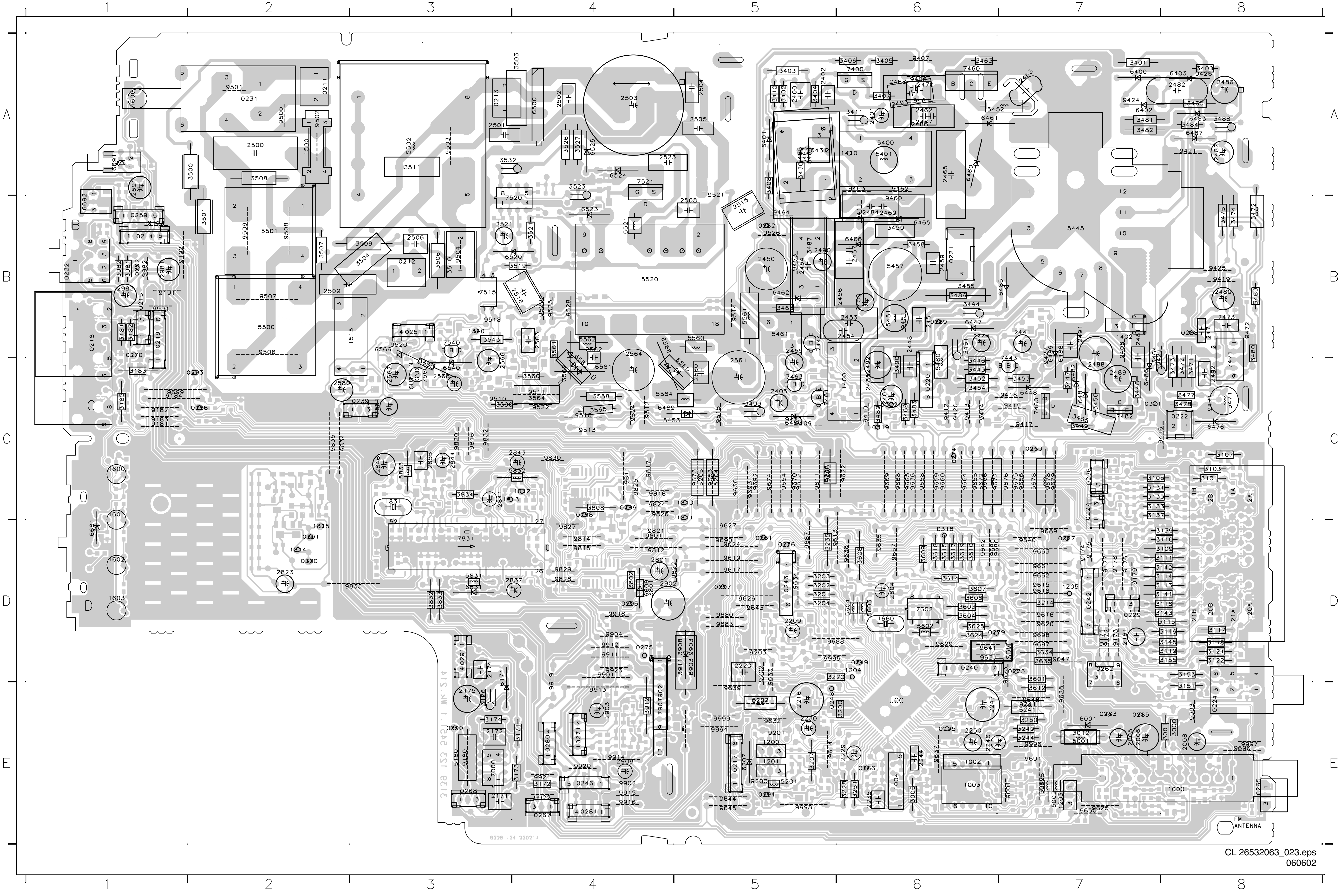
0224-A	F11
0224-B	F11
0227	A7
0229	E7
0235-A	A1
0235-B	A11
0236	A5
0242	F6
0262	G5
1101	A3
1102	B3
1103	B3
1104	C3
1105	C3
1106	D3
1107	C2
1108	D3
1109	C2
1110	E3
1111	E3
1112	F3
1113	F3
1131	A9
1132	B9
1133	B9
1134	C9
1135	B10
1136	C9
1137	C10
1138	C10
1139	D9
1140	C10
1141	D9
1142	E9
1151	F9
1152	F9
2101	A3
2102	A4
2103	A5
2104	B3
2105	B4
2106	B5
2107	B3
2108	B4
2109	B5
2110	C3
2111	C4
2112	C5
2113	C5
2114	D5
2115	D5
2116	E5
2117	E5
2118	F4
2119	F3
2120	F4
2131	A9
2132	A8
2133	A7
2134	B9
2135	B8
2136	B7
2137	B9
2138	B8
2139	B7
2140	C9
2141	C8
2142	C7
2143	C8
2144	D7
2145	D8
2146	E9
2147	E8
2151	F9
2152	F8
2153	F9
2154	F8
2155	F10
2156	F10
2161	G3
3101	A4
3102	A4
3103	B4
3104	B4
3105	B4
3106	B4
3107	C4
3108	C4
3109	C4
3110	C5
3111	D4
3112	D4
3113	D4
3114	D5
3115	E4
3116	E5
3117	E4
3118	E5
3119	F3
3120	F4
3121	F4
3122	F4
3131	A9
3132	A8
3133	B9
3134	B8
3135	B9
3136	B8
3137	C9
3138	C8
3139	C9
3140	C8
3141	D8
3142	D7
3143	D9
3144	D8
3145	E8
3146	E8
3151	E9
3152	F8
3153	F9
3154	F8
3155	G3
4101	A3
4102	B3
4103	A5
4104	B5
4105	F6
4106	A7
4151	E8
4152	F8
6101	C3
6102	D3
6103	D3
6104	E3
6105	E3
6106	F3
6131	D8
6132	E9
7101	E5
7131	D7

Mono Carrier: Tilt and Rotation


A15 TILT & ROTATION
1
2
3
4
5
6
7
8
A
B
C
D
E
F
A8-74
Tilt
3173
68K
3174
68K
3171
120K
VlotAux+13V
2171
100p
2172
220p
7000
TDA8941P
12V6 1
VCC
6V3 5 IN-
6V3 3 IN+
OUT- 7
6V3
OUT+ 2
6V1
6V2 4 MODE
STANDBY/
MUTE LOGIC
Vcc
20K
6 SVR
20K
SHORT CIRCUIT
AND
TEMPERATURE
PROTECTION
GND
8
0268
3
2
1
TO
ROTATION
COIL
VlotAux+13V
0291
1
2
3
4
TO 1015
OF
GPM CCT.
PANEL
TO 0289
OF
A2
0290
9180
5180
27u
3176
1R
2174
470p
6171
BYD33D
2175
470u
CL 26532063_021.eps
210502

0268	C8
0290	F5
0291	F8
2171	C4
2172	C5
2174	F7
2175	F7
3171	C4
3173	C4
3174	C5
3176	F6
5180	F6
6171	F7
7000	B6
9180	F6

Layout Mono Carrier (Top Side)


1
2
3
4
5
6
7
8
A
B
C
D
E
UOC
FM ANTENNA

CL 26532063_023.eps
060602

Layout Mono Carrier (Mapping Top Side)

0211	A2
0212	B3
0213	A3
0214	B1
0215	B1
0217	E5
0218	B1
0219	B1
0220	C6
0221	B6
0222	C8
0224	E8
0227	C7
0229	D7
0231	A2
0232	B1
0235	D8
0236	C7
0239	C3
0240	D6
0242	D7
0243	D5
0246	E4
0248	E5
0249	D6
0250	C7
0251	B3
0259	B1
0261	D5
0262	D7
0265	E8
0266	E6
0267	E4
0268	E3
0270	B1
0271	E4
0273	D7
0274	C6
0275	D4
0276	D5
0277	B1
0279	D6
0280	E4
0281	E4
0282	B5
0283	E7
0285	E7
0286	C2
0287	D7
0288	B8
0289	B6
0290	E3
0291	D3
0292	B1
0293	C2
0294	E5
0295	E6
0296	D4
0297	D5
0298	C4
0299	C4
0300	D2
0301	D2
0318	D6
0319	C6
0321	C7
0322	C6
1000	E8
1002	E6
1003	E6
1004	E6
1200	E5
1201	E5
1203	E7
1204	D6
1205	D7
1400	C6
1402	B7
1410	A6
1500	A2
1515	B3
1530	B5
1531	B5
1532	B4
1533	B4
1534	B4
1535	B4
1540	B3
1600	C1
1601	C1
1602	D1
1603	D1
1606	A1
1660	D6
1810	C5
1811	C5
1812	C4
1813	C3
1814	D2
1815	D2
1831	C3
2005	E7
2006	E7
2008	E8
2161	D7
2171	E3
2172	E3
2174	D3
2175	E3
2209	D5
2216	E5
2220	D5
2229	E6
2230	E5
2235	E6
2244	E6
2246	E6
2247	E6
2250	E6
2400	A5
2401	A6
2402	A5
2404	C6
2405	C5
2441	B7
2444	B6
2448	B6
2450	B5
2451	B6
2453	B6
2454	B6
2455	B5
2456	B6
2457	B6
2458	B6
2459	B6
2462	A6
2463	A7
2464	B5
2465	A6
2466	A6
2467	A6
2468	A6
2469	B6
2470	A6
2471	B8
2472	C8
2473	B8
2480	B8
2481	B7
2482	A8
2484	B6
2485	C6
2486	A8
2487	A8
2488	C7
2489	C7
2490	B5
2491	B7
2492	C6
2493	A6
2500	A2
2501	A3
2502	A4
2503	A4
2504	A5
2505	A5
2506	B3
2508	B5
2509	B2
2515	B5
2516	B4
2521	B3
2523	A4
2560	C5
2561	C5
2562	B4
2563	B4
2564	B4
2566	C3
2567	C3
2568	C3
2580	C2
2581	C3
2604	D6
2691	A1
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2837	D4
2841	C3
2843	C4
2844	C3
2846	C3
2855	C3
2902	D4
2903	E4
2908	E4
2981	B1
2983	B1
3000	E8
3001	E8
3005	E6
3012	E7
3101	C8
3103	C8
3105	C7
3107	C8
3109	D8
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3113	D8
3114	D8
3115	D8
3116	D8
3117	D8
3118	D8
3119	D8
3121	D8
3122	D8
3131	C7
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3135	C7
3137	C7
3139	D8
3141	D8
3142	D8
3143	D8
3145	D8
3146	D8
3151	E8
3153	D8
3155	D8
3171	E4
3172	E4
3173	E4
3174	E3
3176	E3
3181	B1
3182	B1
3183	C1
3185	C1
3200	E6
3201	D5
3202	D5
3203	D5
3204	D5
3207	E5
3214	D7
3220	D5
3228	E6
3235	D5
3244	E7
3249	E7
3250	E7
3251	E6
3400	A8
3401	A7
3402	A5
3403	A5
3404	A5
3405	A6
3406	A6
3407	A6
3408	A5
3410	A5
3411	A6
3430	A5
3431	A5
3445	C6
3446	C6
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3450	C7
3451	B6
3452	C6
3453	C7
3454	C6
3455	C7
3458	B6
3459	B6
3460	B8
3463	A6
3464	B7
3465	A8
3468	B5
3469	C6
3471	C8
3472	C8
3473	C8
3474	B8
3475	B8
3477	C8
3478	C8
3480	B8
3481	A7
3482	A7
3483	C6
3484	A8
3485	B6
3486	B6
3487	B5
3488	A8
3489	C6
3490	C6
3493	C5
3494	B6
3500	A2
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3503	A4
3504	B3
3506	B3
3507	B2
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3510	B3
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3635	D7
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3808	C4
3832	D3
3833	D3
3834	C3
3908	D5
3911	D5
3912	E4
3981	B1
3982	B1
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5002	E7
5180	E3
5201	E5
5202	E5
5204	C5
5205	C5
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5401	A6
5445	B7
5451	B6
5452	A6
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5457	B6
5461	B5
5463	A5
5464	A5
5465	A5
5471	C8
5472	B8
5480	C6
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5501	B2
5502	A3
5520	B4
5521	B4
5560	B5
5561	B5
5562	B4
5564	C4
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5603	D6
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5672	C6
5678	C7
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5832	C4
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6207	E5
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6401	A5
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6466	B6
6469	C4
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6489	B7
6490	C5
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6520	B4
6523	B4
6524	A4
6525	A4
6540	C3
6560	C5
6561	C4
6562	C4
6566	B3
6568	B4
6582	C4
6681	D1
6691	A1
6692	B1
6808	D4
6831	D3
6903	D5
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7461	C5
7463	C5
7471	C8
7480	C7
7482	C7
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7520	B4
7521	A4
7540	B3
7560	C3
7602	D6
7831	D3
7901	E4
7902	E4
9001	E7
9171	D7
9172	D7
9173	D7
9174	D7
9175	D7
9176	D7
9177	D7
9178	D7
9179	D7
9180	E3
9181	C1
9182	C1
9183	C1
9184	C1
9191	B1
9192	B1
9193	B1
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9201	E5
9202	D5
9203	D5
9206	C5
9207	E5
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9407	A6
9408	B7
9409	C5
9410	C6
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9462	A6
9463	A6
9464	B5
9471	C8
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9501	A2
9502	A2
9503	A3
9504	B3
9506	B2
9507	B2
9508	B2
9509	B2
9510	C3
9511	C4
9512	C4
9513	C4
9514	B5
9515	C5
9516	C4
9518	B3
9520	B3
9521	A5
9522	C4
9524	C4
9525	B4
9526	B5
9528	B4
9529	B4
9611	C5
9612	C5
9613	D5
9614	E5
9615	D7
9616	D7
9617	D5
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9620	D7
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9624	D5
9625	E7
9626	D5
9627	D5
9628	E7
9629	D6
9630	C5
9631	D6
9632	E5
9633	D5
9634	D5
9635	D6
9636	C6
9637	E6
9638	D6
9639	E5
9640	D7
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9643	D5
9644	E5
9645	E5
9647	D7
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9650	E7
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9654	C5
9655	C6
9656	C7
9657	D6
9658	C6
9659	C6
9660	C6
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9663	D7
9664	C6
9665	C6
9666	C6
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9669	C6
9670	C5
9672	C6
9673	C5
9674	C5
9675	C7
9676	C7
9678	C7
9679	C7
9680	D5
9683	D5
9685	D6
9686	D6
9687	D5
9688	D5
9689	D7
9690	D5
9691	E7
9692	C5
9693	C5
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9696	E8
9697	D7
9698	D7
9699	C1
9801	D4
9811	C4
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9829	D4
9830	C4
9832	C3
9833	D3
9834	C2
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9902	E4
9903	D5
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9911	D4
9912	D4
9913	E4
9914	E4
9915	E4
9916	E4
9918	D4
9919	D4
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9922	E4
9923	D4
9982	B1
9991	B1
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9994	E5
9995	D5
9996	E7
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9998	E5
9999	E5

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Layout Mono Carrier (Mapping Bottom Side)

2001	A8
2002	A8
2003	A7
2004	A7
2007	A7
2009	A6
2010	A8
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2102	C7
2103	C7
2104	C8
2105	C8
2106	C7
2107	C8
2108	C7
2109	C7
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2115	B8
2116	B7
2117	B8
2118	B8
2119	B8
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2138	C7
2139	C7
2140	C8
2141	B7
2142	B7
2143	B7
2144	B7
2145	B8
2146	B8
2147	B7
2151	A7
2152	A8
2153	B8
2154	B7
2155	A8
2156	A8
2181	D1
2182	D1
2183	C1
2184	C2
2185	D1
2186	C1
2201	A5
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2208	A5
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2217	A5
2219	A6
2221	B5
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2225	A6
2226	A6
2227	A6
2228	A6
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2236	A7
2237	A7
2238	A7
2239	A7
2240	A7
2241	A6
2242	A6
2243	A6
2245	A5
2248	A7
2249	A6
2252	A7
2253	A7
2254	A7
2255	A5
2260	B5
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2420	C5
2421	C6
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2452	C8
2460	C5
2461	C6
2474	D8
2475	D8
2476	C7
2507	D4
2520	D4
2522	E4
2525	D4
2526	D3
2527	E4
2528	D4
2540	C3
2541	D3
2569	C5
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2602	B6
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2613	B6
2615	B6
2616	B6
2618	B6
2619	B6
2692	E1
2693	D2
2694	E1
2695	E1
2696	D1
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2803	C3
2804	B4
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2813	B2
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2815	B2
2816	C2
2817	C2
2818	C2
2819	C2
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2898	B3
2901	B4
2904	A4
2905	A4
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2950	A4
2982	D1
2984	D1
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3003	A8
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3104	C8
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3246	A5
3247	C6
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3259	B6
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3270	A5
3441	D7
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3496	C8
3497	C7
3498	C8
3499	C5
3520	D4
3522	D4
3524	E4
3525	E4
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3563	C4
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3568	D3
3569	D3
3570	D4
3580	C2
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3595	D5
3596	D5
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3629	B6
3630	B6
3632	B6
3633	B6
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3637	B5
3638	A5
3681	B1
3682	C1
3683	C1
3684	B1
3685	C2
3686	B1
3687	C1
3688	C1
3689	C2
3691	E1
3692	E1
3693	E1
3694	E1
3695	C2
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3804	C4
3805	B4
3806	C4
3807	C4
3809	B4
3810	B4
3811	C2
3812	C2
3813	C2
3814	B2
3815	C2
3831	B3
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3837	C4
3839	C4
3840	C3
3841	C3
3842	C3
3843	C3
3844	C4
3845	C4
3849	C3
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4002	A6
4003	A7
4004	A6
4005	A7
4006	A7
4007	A7
4011	A6
4012	A6
4101	C8
4102	C8
4103	C7
4104	C7
4105	B7
4106	C7
4151	A8
4152	B7
4171	B8
4203	A6
4204	A5
4205	B5
4206	B5
4207	B5
4209	A5
4210	A5
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4212	A6
4213	A6
4214	C5
4218	A6
4219	B5
4401	C7
4402	E8
4430	C5
4470	D8
4500	C4
4601	B6
4602	B6
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4604	A5
4608	A8
4609	A8
4613	B5
4614	A5
4615	B6
4616	B6
4617	A6
4618	A5
4619	A6
4622	A7
4623	A7
4691	D1
4692	C2
4693	C2
4694	B1
4695	E1
4696	C1
4805	B4
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4815	B4
4820	C2
4832	C3
4834	C3
4835	C3
4836	C3
4837	B2
4861	B3
4901	A4
4902	A4
4903	A4
4904	A4
4905	B4
4906	A4
4921	B4
4982	D1
4991	A7
5003	A6
5450	C8
5835	C3
6002	A8
6003	A8
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6005	A7
6101	B8
6102	B8
6103	B8
6104	B8
6105	B8
6106	B8
6131	B8
6132	B8
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6445	D7
6449	C7
6452	C6
6453	C6
6463	C6
6467	C5
6468	C5
6470	D7
6522	D3
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6567	D4
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6570	C3
6580	C3
6801	C2
6802	C2
6803	C2
6804	C2
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6806	C2
6807	C2
6901	A4
7001	A7
7002	A6
7101	B7
7131	B7
7200	A6
7201	A5
7204	B5
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7210	A7
7441	D7
7450	C6
7462	C5
7522	D4
7541	D3
7542	C3
7561	C4
7562	C4
7564	C3
7580	C3
7606	B7
7801	C4
7802	B4
7803	C4
7804	B4
7805	B2
7806	B2
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7834	C3
7835	C3
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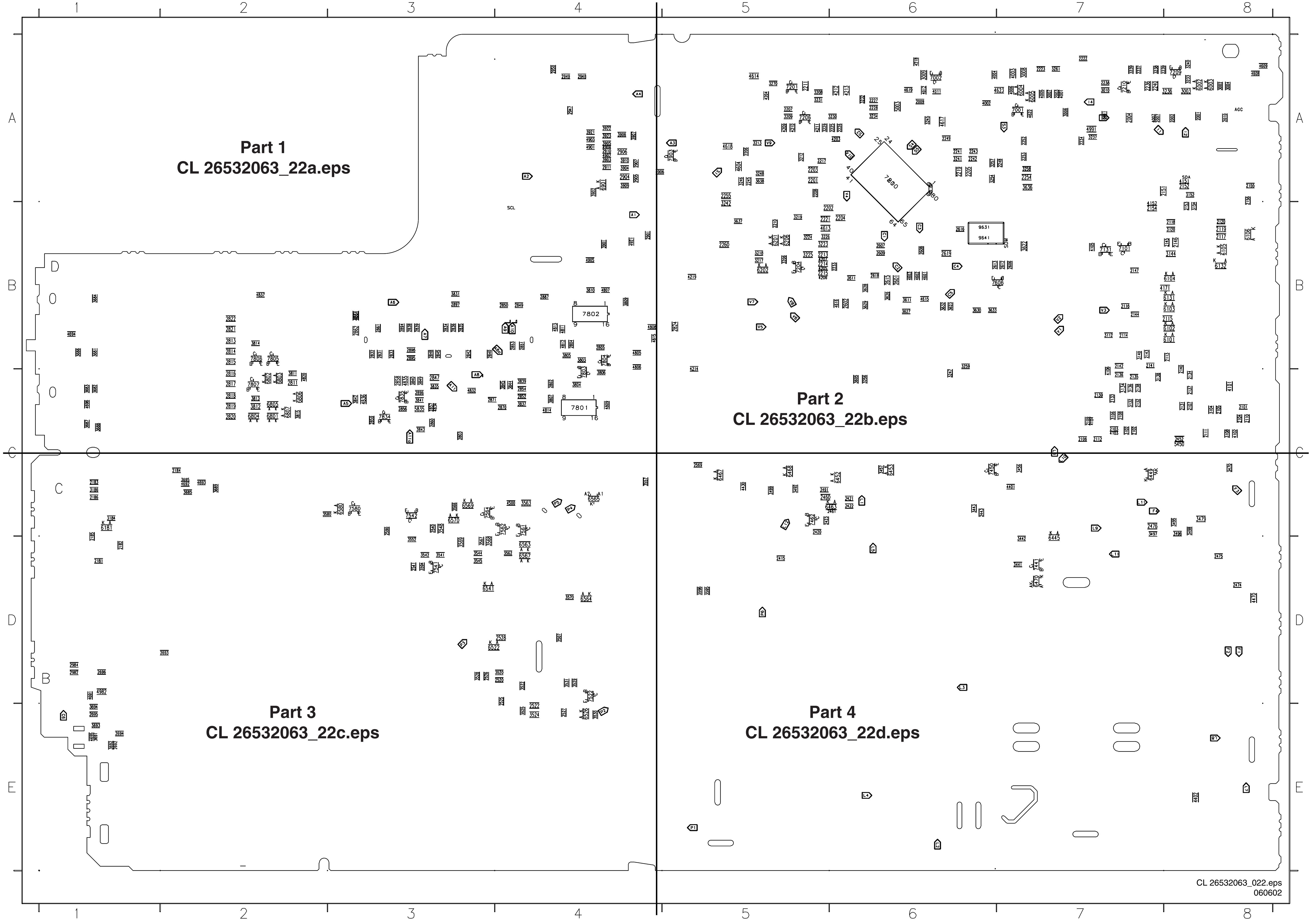
Layout Mono Carrier (Overview Bottom Side)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A
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C
D
E
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Part 2
CL 26532063_22b.eps
Part 3
CL 26532063_22c.eps
Part 4
CL 26532063_22d.eps
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SCL
SDA
AGC

CL 26532063_022.eps
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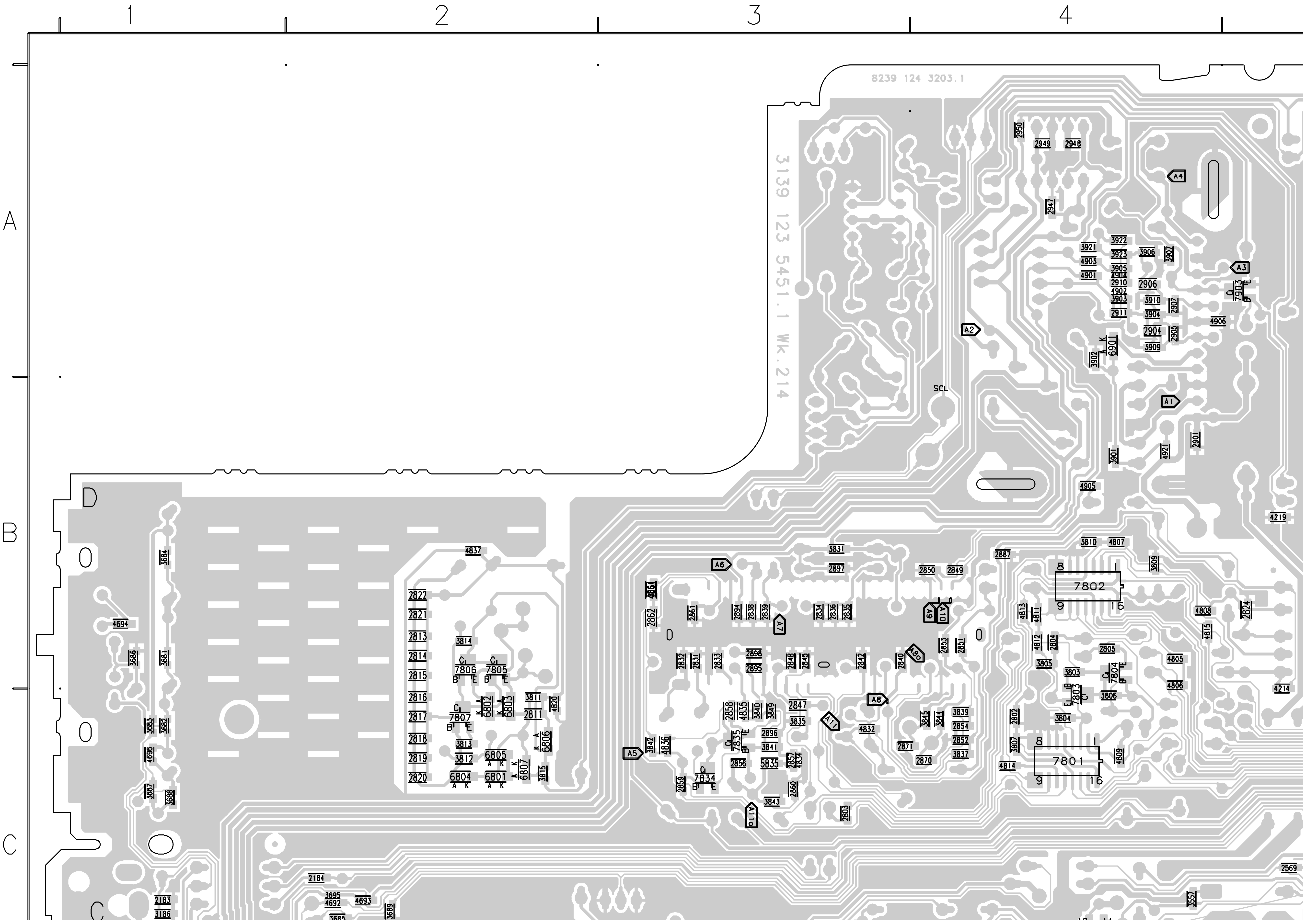
Layout Mono Carrier (Part 1 Bottom Side)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A4
A3
A2
A1
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3922
3923
3906
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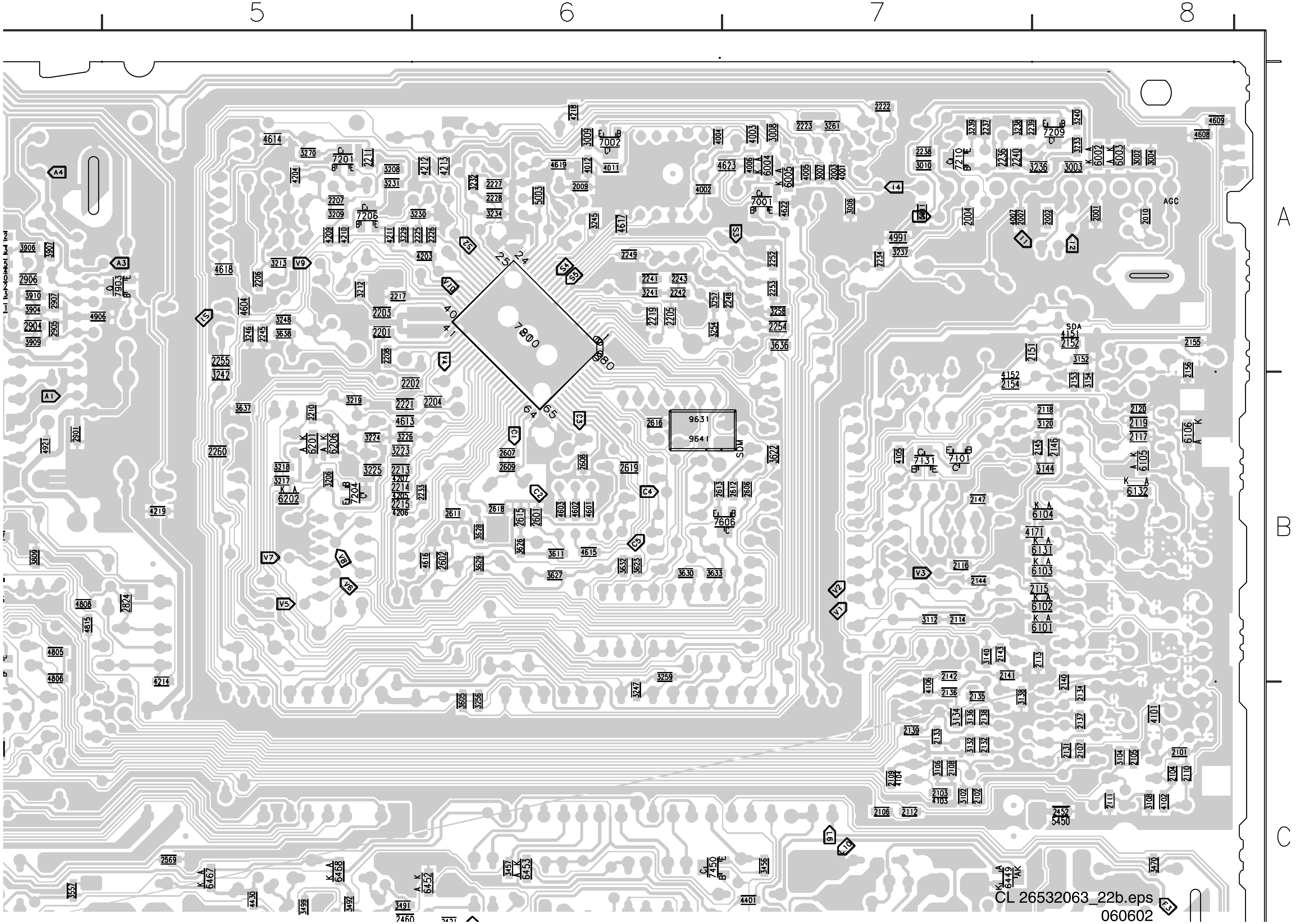
4692
4693
3689
3685

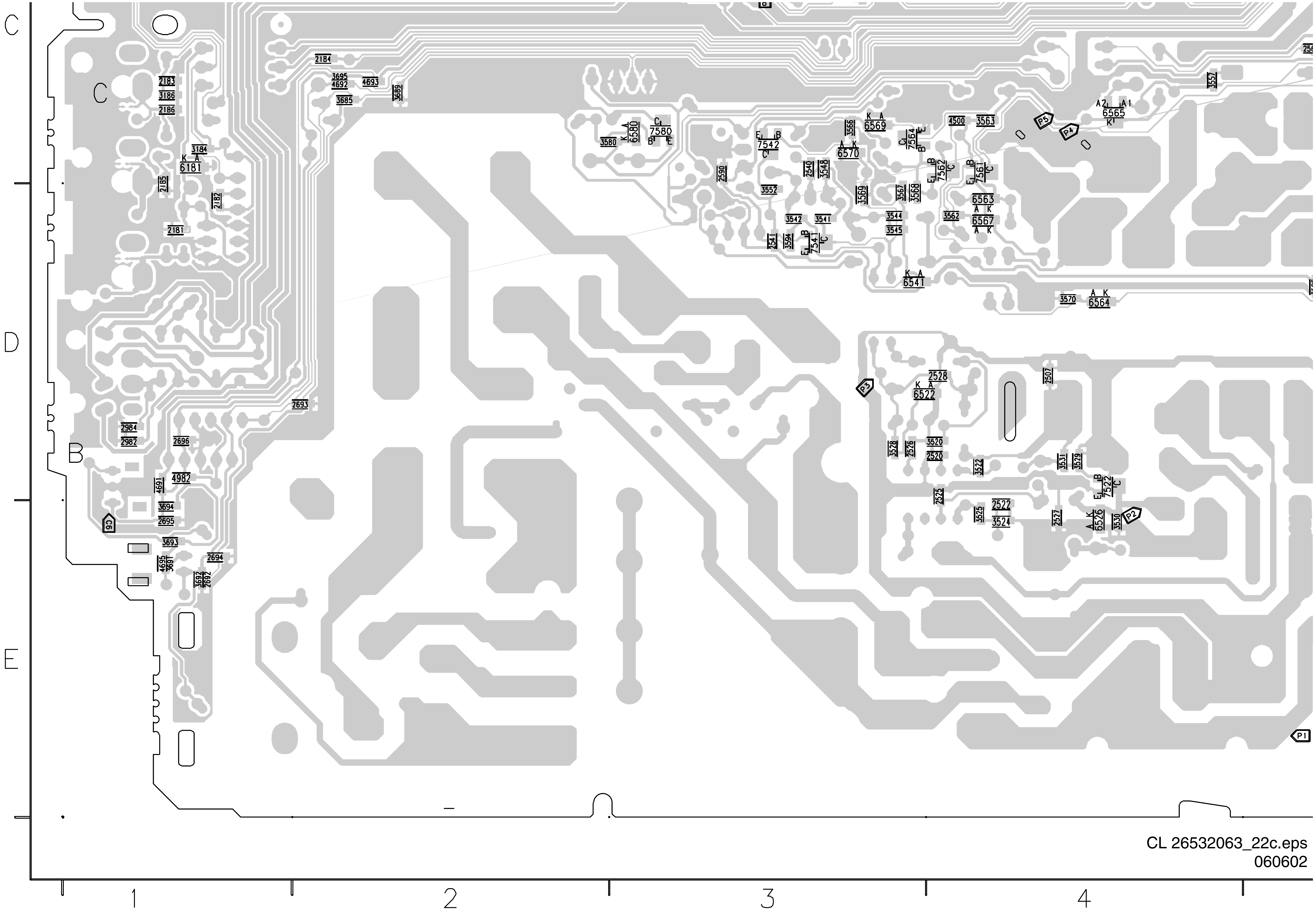
CL 26532063_22a.eps
060602

Layout Mono Carrier (Part 2 Bottom Side)


5
6
7
8
A
B
C
7800
9631
9641
SDM
AGC
SDA

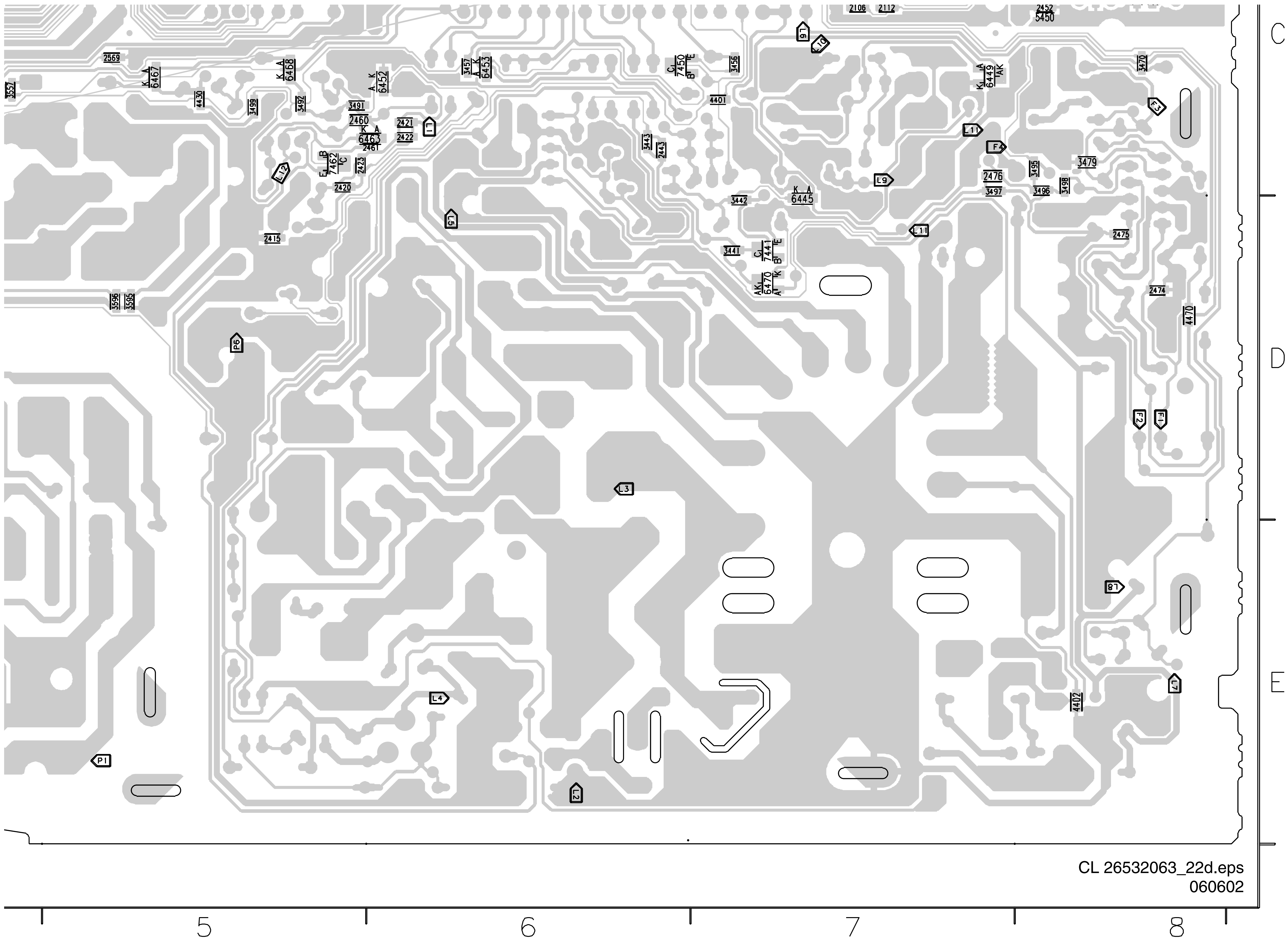
CL 26532063_22b.eps
060602

Layout Mono Carrier (Part 3 Bottom Side)


C
C
D
E
B
1
2
3
4
2184
3695
4692
4693
3685
3689
2183
3186
2186
3184
6181
2185
2182
2181
3580
6580
7580
7542
2590
3552
2540
3548
3566
6569
6570
7564
3569
3567
3568
7562
7561
4500
3563
P5
P4
6565
3557
6563
6567
3542
3541
3544
3545
3562
2541
3594
7541
6541
3570
6564
2693
2984
2982
2696
4982
4691
3694
2695
C6
3693
2694
4695
3691
3692
2692
P3
2528
6522
2507
3528
2526
3520
2520
3522
3531
3529
7522
2525
3525
2522
3524
2527
6526
3530
P2
P1

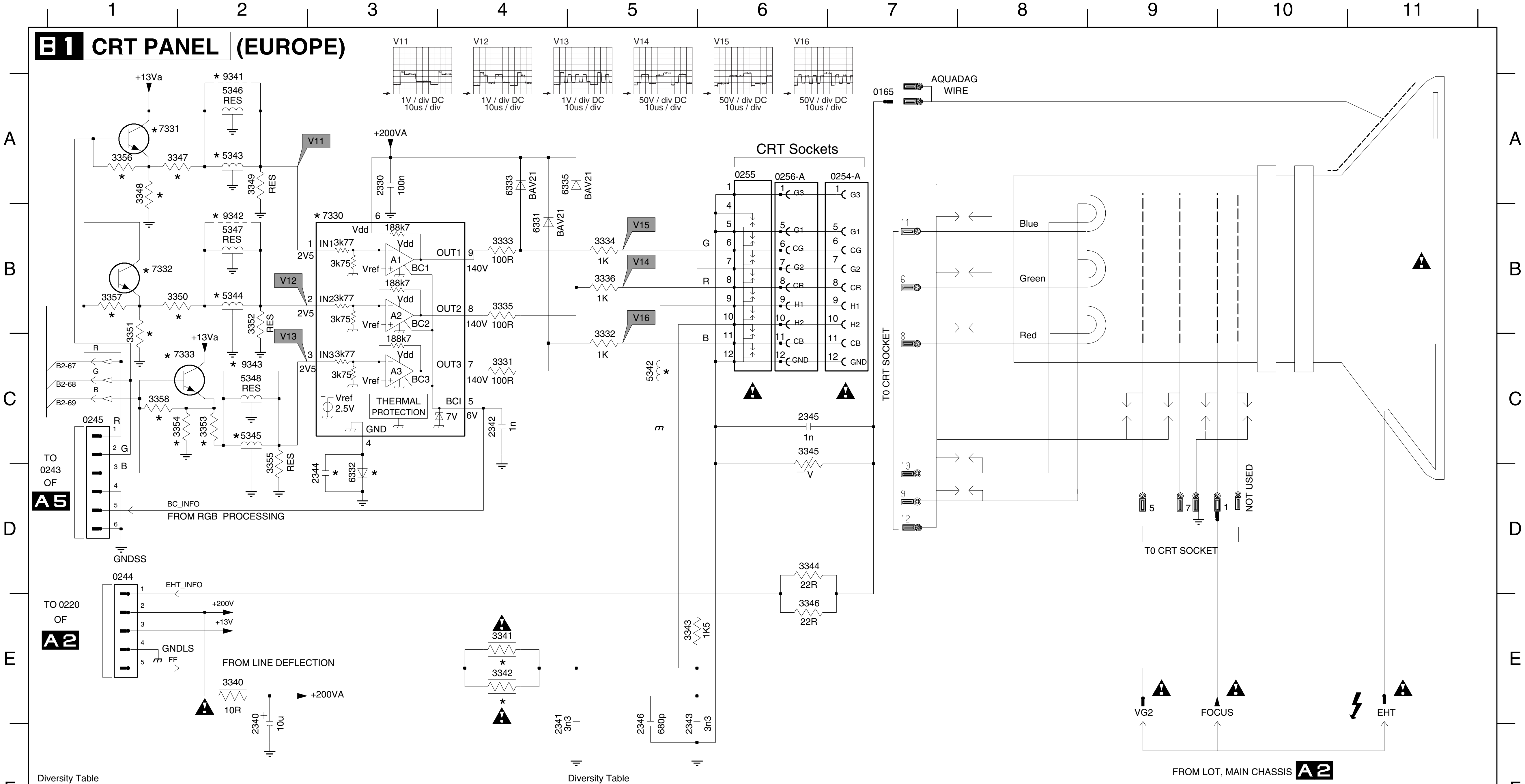
CL 26532063_22c.eps
060602

Layout Mono Carrier (Part 4 Bottom Side)


2106
2112
2452
5450
2569
6467
K A
3552
4430
3499
6468
K A
3492
3491
2460
6463
K A
2461
6452
A K
2421
2422
L1
3457
6453
A K
7450
C
B E
3456
4401
G1
G1
6449
K A
AK
3470
C1
L1
F4
3479
3495
2476
3497
3496
3498
L12
7462
B
E C
2423
2420
3443
2443
L9
3442
6445
K A
G5
L11
2475
2415
3441
7441
C
B E
6470
AK K A
2474
3596
3595
4470
P6
F2
F1
L3
L8
L7
4402
L4
P1
L2
C
D
E
5
6
7
8

CL 26532063_22d.eps
060602

CRT Panel


B1 CRT PANEL (EUROPE)
V11
V12
V13
V14
V15
V16
1V / div DC 10us / div
50V / div DC 10us / div
+13Va
+200VA
7330
TDA
THERMAL PROTECTION
CRT Sockets
0255
0256-A
0254-A
AQUADAG WIRE
0165
Blue
Green
Red
T0 CRT SOCKET
NOT USED
TO 0243 OF A5
BC_INFO
FROM RGB PROCESSING
GNDSS
TO 0220 OF A2
EHT_INFO
GNDLS
FROM LINE DEFLECTION
VG2
FOCUS
EHT
FROM LOT, MAIN CHASSIS A2

Diversity Table

ITEM	REGION TUBE (EUROPE)							
	21/25RF	29SF	28BLD/BLS/32WS(O)	29RF(I)	28/32WS(I)	32W(TH)(O)	28/32WS(TH)(I)	NO SVM SETS
2344	100n	100n	100n	JMP	JMP	100n	JMP	100n
3347	JMP	JMP	JMP	1K	1K	JMP	1K	JMP
3348	---	---	---	1K	1K	---	1K	---
3350	JMP	JMP	JMP	1K	1K	JMP	1K	JMP
3351	---	---	---	1K	1K	---	1K	---
3353	JMP	JMP	JMP	1K	1K	JMP	1K	JMP
3354	---	---	---	1K	1K	---	1K	---
3356	JMP	JMP	JMP	---	---	JMP	---	JMP
3357	JMP	JMP	JMP	---	---	JMP	---	JMP
3358	JMP	JMP	JMP	---	---	JMP	---	JMP
5343	---	---	---	SDL-4893	SDL-4893	---	SDL-4893	---
5344	---	---	---	SDL-4893	SDL-4893	---	SDL-4893	---
5345	---	---	---	SDL-4893	SDL-4893	---	SDL-4893	---
6332	BAS316	BAS316	BAS316	---	---	BAS316	---	BAS316
7330	TDA6107	TDA6107	TDA6107	TDA6108	TDA6108	TDA6107	TDA6108	TDA6107
7331	---	---	---	BC847B	BC847B	---	BC847B	---
7332	---	---	---	BC847B	BC847B	---	BC847B	---
7333	---	---	---	BC847B	BC847B	---	BC847B	---
9341	JMP	JMP	JMP	---	---	JMP	---	JMP
9342	JMP	JMP	JMP	---	---	JMP	---	JMP
9343	JMP	JMP	JMP	---	---	JMP	---	JMP

Diversity Table

ITEM	REGION TUBE													
	EU PH NO EW 21FSQ	EU PH EW 28" BLD	EU PH EW 28"BLS	EU PH EW 25BLD	EU PH EW 25BLS	EU PH EW 29SF	EU PH EW 24" WS BLD	EU SGMK EW 29" RF	EU PH EW 32" WS BLS	EU PH EW 28" WS BLD	EU SGMK EW 25" RF	EU MATJ EW 21" RF	EU THCF EW 32WS	EU THCF EW 28WS
3341	1R	1R	1R	1R	1R	1R	1R	1R	1R8	1R5	1R	1K5	1R5	1R5
3342	1R	1R	1R	1R	1R	1R	1R	1R	1R8	1R5	1R	---	1R5	1R5
5342	22u	15u	22u	15u	22u	18u	22u	3u9	18u	22u	3u9	100MHZ 50R	JMP	JMP

MODEL	L2K2				
REGION	EU				
TUBE					
SET	29RF	21RF	28WR	32WR	32WR
2343	--	2KV 3N3	2KV 2N2	---	---
2346	2KV 1N2	---	---	2KV 470P	---
3344	22R	22R	33R	33R	33R
3346	22R	22R	33R	33R	33R
5342	LAL04 3U9	LAL04 22U	LAL04 22U	LAL04 22U	LAL04 22U

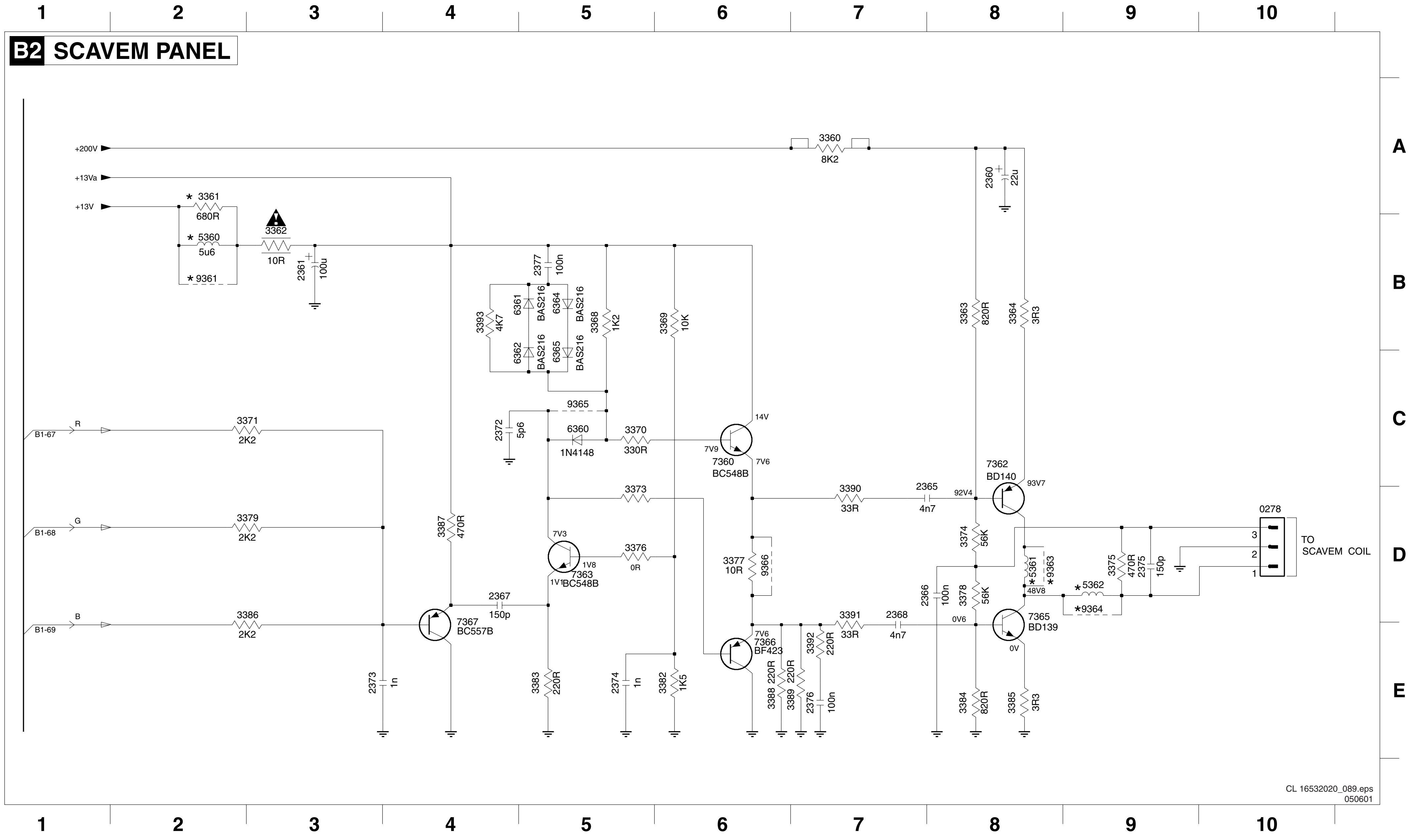
CL 26532063_020.eps
060602

VG2	E9
0165	A7
0244	D1
0245	C1
0254-A	A7
0255	A6
0256-A	A6
2330	A3
2340	F2
2341	F4
2342	C4
2343	F5
2344	D3
2345	C6
2346	F5
3331	C4
3332	C5
3333	B4
3334	B5
3335	B4
3336	B5
3340	E2
3341	E4
3342	E4
3343	E5
3344	D6
3345	C6
3346	E6
3347	A2
3348	A1
3349	A2
3350	B2
3351	B1
3352	B2
3353	C2
3354	C2
3355	C2
3356	A1
3357	B1
3358	C1
5342	C5
5343	A2
5344	B2
5345	C2
5346	A2
5347	B2
5348	C2
6331	B4
6332	D3
6333	A4
6335	A4
7330	B3
7331	A1
7332	B1
7333	C1
9341	A2
9342	B2
9343	C2

SCAVEM Panel

Diversity Table B2

Item	Description	21" Real flat	25" Real flat	29" Super flat	28" Blackline, FM radio	32" Wide screen, No FM radio	29" Real flat	28" Wide screen, FM radio	32" Wide screen, FM radio	21" Blackline	24" Wide screen	25" Blackline	28" Blackline, No FM radio	28" Wide screen, No FM radio
2365	22N 250V	X	X	X	X	X	X	X	X					
2366	100N 100V	X	X	X	X	X	X	X	X					
2367	47P 50V	X	X	X										
2367	56P 50V				X	X								
2367	150P 50V						X							
2367	180P 50V							X	X					
2368	22N 50v	X	X	X	X	X	X	X	X					
2372	5P6 50V	X	X	X	X	X								
2373	56P 50V							X	X					
2375	100P 50V	X	X	X	X	X								
2375	330P 50V							X	X					
2376	100N 25V						X	X	X					
2377	100N 25V						X	X	X					
3360	8K2 5W	X	X	X	X	X	X	X	X					
3361	680R													
3362	Fuse 10R	X	X	X	X	X	X	X	X					
3363	820R	X	X	X	X	X	X	X	X					
3364	1R8						X	X	X					
3364	3R3	X	X	X	X	X								
3368	2K7	X	X	X	X	X	X	X	X					
3369	10K	X	X	X	X	X	X	X	X					
3370	220R						X	X	X					
3370	330R	X	X	X	X	X								
3371	10K	X	X	X	X	X								
3371	4K7						X	X	X					
3373	220R						X	X	X					
3374	56K	X	X	X	X	X	X	X	X					
3375	150R							X	X					
3375	220R						X							
3375	470R	X	X	X	X	X								
3376	Jumper	X	X	X	X	X	X	X	X					
3377	10R						X							
3377	4R7							X	X					
3378	56K	X	X	X	X	X	X	X	X					
3379	10K	X	X	X	X	X								
3379	4K7						X	X	X					
3382	1K5	X	X	X	X	X	X	X	X					
3383	470R	X	X	X	X	X	X	X	X					
3384	820R	X	X	X	X	X	X	X	X					
3385	1R8						X	X	X					
3385	3R3	X	X	X	X	X								
3386	10K	X	X	X	X	X								
3386	4K7						X	X	X					
3387	470R	X	X	X	X	X	X	X	X					
3388	220R	X	X	X	X	X								
3389	220R	X	X	X	X	X								
3390	10R							X	X					
3390	33R	X	X	X	X	X	X							
3391	10R							X	X					
3391	33R	X	X	X	X	X	X							
3392	220R						X	X	X					
3393	4K7						X	X	X					
5360	5.6uH 10%	X	X	X	X	X	X	X	X					
5361	COIL													
5362	COIL													
6360	1N4148						X	X	X					
6361	BAS316						X	X	X					
6362	BAS316						X	X	X					
6364	BAS316						X	X	X					
6365	BAS316						X	X	X					
7360	BC547B	X	X	X	X	X	X	X	X					
7362	2SA1358	X	X	X	X	X	X	X	X					
7363	BC547B	X	X	X	X	X	X	X	X					
7365	2SC3421	X	X	X	X	X	X	X	X					
7366	BF423						X	X	X					
7367	BC557B	X	X	X	X	X	X	X	X					
9361	Wire													
9363	Wire	X	X	X	X	X	X	X	X					
9364	Wire	X	X	X	X	X	X	X	X					
9365	Wire	X	X	X	X	X								
9366	Wire	X	X	X	X	X								

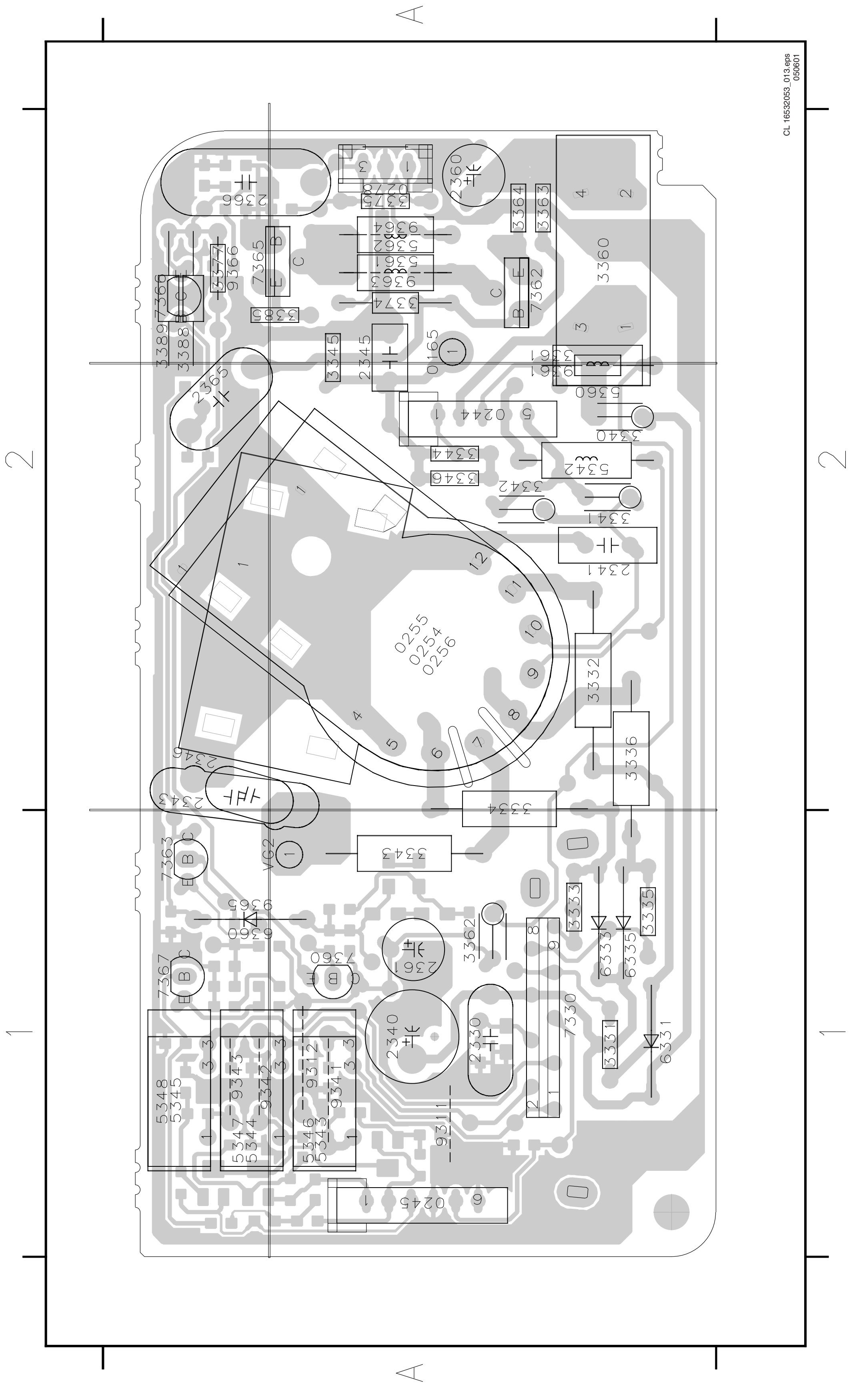


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
B2 SCAVEM PANEL
+200V
+13Va
+13V
3360
8K2
2360
22u
★ 3361
680R
★ 5360
5u6
★9361
3362
10R
2361
100u
2377
100n
6361
BAS216
6364
BAS216
6362
BAS216
6365
BAS216
3393
4K7
3368
1K2
3369
10K
3363
820R
3364
3R3
9365
2372
5p6
6360
1N4148
3370
330R
14V
7V9
7V6
7360
BC548B
7362
BD140
93V7
B1-67
R
3371
2K2
B1-68
G
3379
2K2
B1-69
B
3386
2K2
3373
3390
33R
2365
4n7
92V4
3387
470R
7V3
1V8
3376
0R
1V1
7363
BC548B
3377
10R
9366
3374
56K
★5361
★9363
48V8
3375
470R
2375
150p
★5362
★9364
0278
3
2
1
TO
SCAVEM COIL
7367
BC557B
2367
150p
2366
100n
3378
56K
7V6
7366
BF423
3391
33R
2368
4n7
0V6
7365
BD139
0V
3392
220R
2373
1n
3383
220R
2374
1n
3382
1K5
3388
220R
3389
220R
2376
100n
3384
820R
3385
3R3
CL 16532020_089.eps
050601

0278	D10
2360	A8
2361	B3
2365	D8
2366	D7
2367	D4
2368	D7
2372	C4
2373	E3
2374	E5
2375	D9
2376	E7
2377	B5
3360	A7
3361	A2
3362	B3
3363	B8
3364	B8
3368	B5
3369	B6
3370	C5
3371	C3
3373	D5
3374	D8
3375	D9
3376	D5
3377	D6
3378	D8
3379	D3
3382	E6
3383	E5
3384	E8
3385	E8
3386	D3
3387	D4
3388	E6
3389	E7
3390	D7
3391	D7
3392	E7
3393	B4
5360	B2
5361	D8
5362	D9
6360	C5
6361	B5
6362	C5
6364	B5
6365	C5
7360	C6
7362	C8
7363	D5
7365	D8
7366	E6
7367	D4
9361	B2
9363	D8
9364	D9
9365	C5
9366	D6

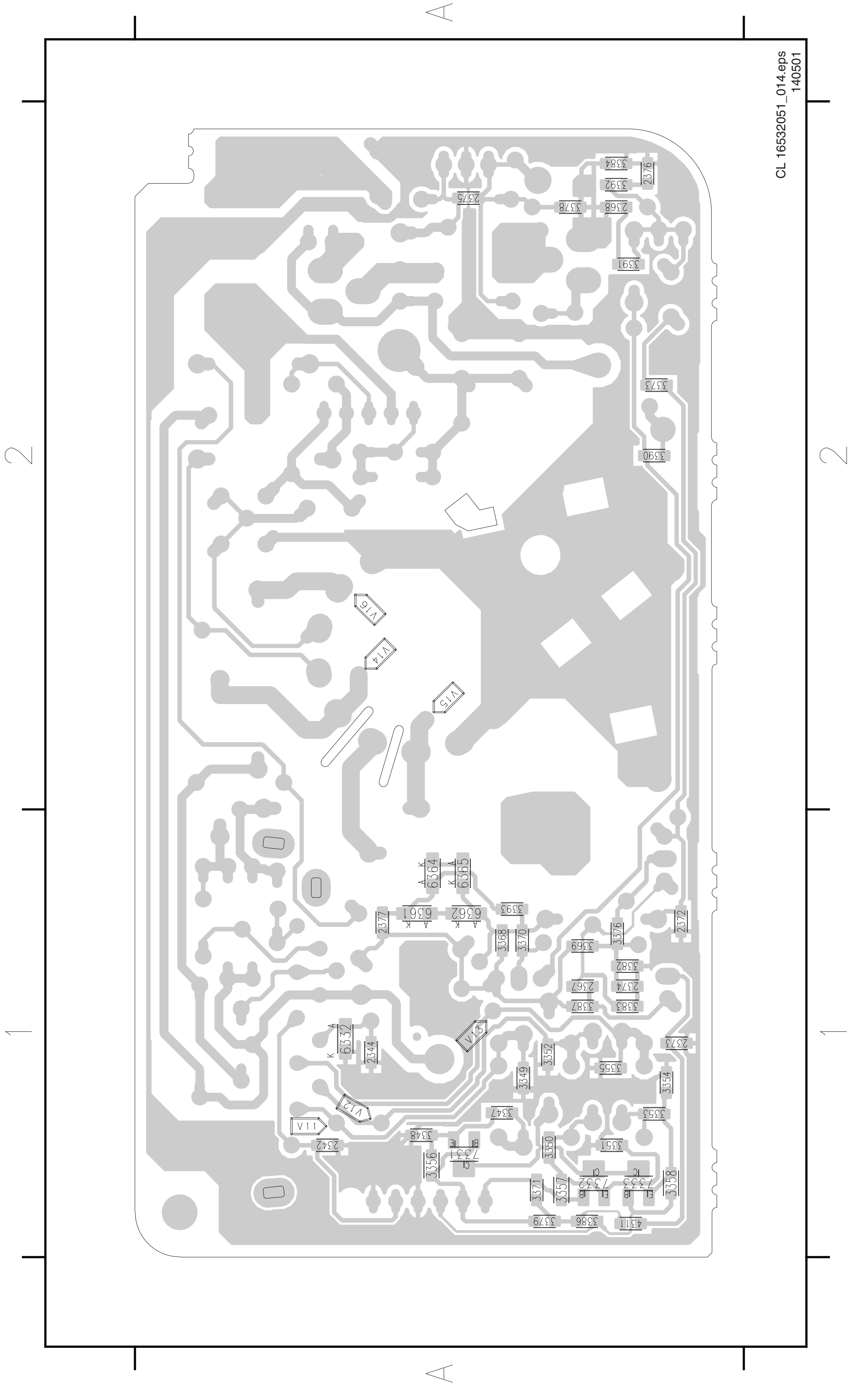
Layout CRT and SCAVEM Panel (Top Side)

VG2	A1	5346	A1
0165	A2	5347	A1
0244	A2	5348	A1
0245	A1	5360	A2
0254	A2	5361	A2
0255	A2	5362	A2
0256	A2	6331	A1
0278	A2	6333	A1
2330	A1	6335	A1
2340	A1	6360	A1
2341	A2	7330	A1
2343	A2	7360	A1
2345	A2	7362	A2
2346	A2	7363	A1
2360	A2	7365	A2
2361	A1	7366	A2
2365	A2	7367	A1
2366	A2	9311	A1
3331	A1	9312	A1
3332	A2	9341	A1
3333	A1	9342	A1
3334	A2	9343	A1
3335	A1	9361	A2
3336	A2	9363	A2
3340	A2	9364	A2
3341	A2	9365	A1
3342	A2	9366	A2
3343	A1		
3344	A2		
3345	A2		
3346	A2		
3360	A2		
3361	A2		
3362	A1		
3363	A2		
3364	A2		
3374	A2		
3375	A2		
3377	A2		
3385	A2		
3388	A2		
3389	A2		
5342	A2		
5343	A1		
5344	A1		
5345	A1		

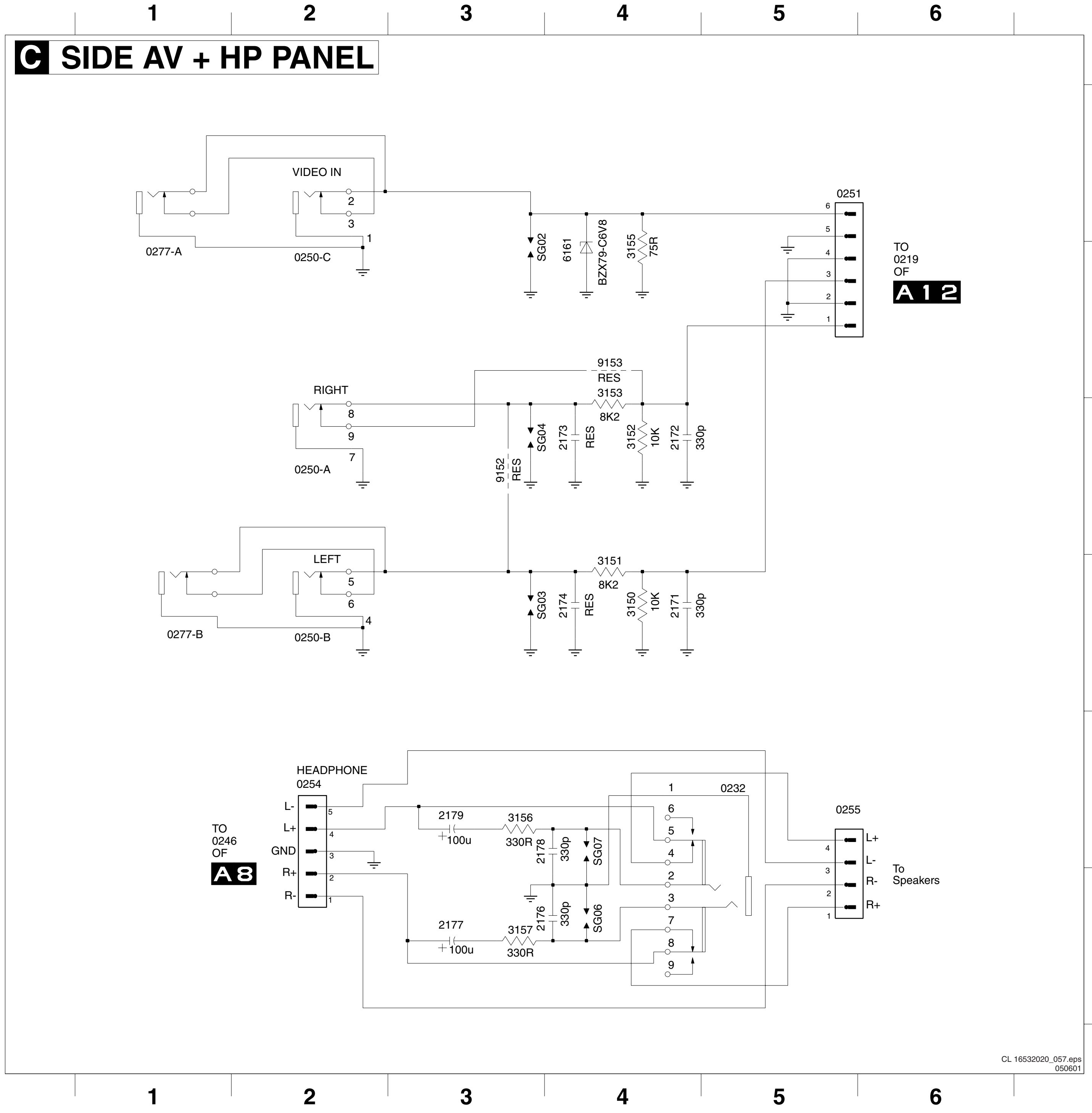


Layout CRT and SCAVEM (Bottom Side)

2342	A2
2344	A2
2367	A2
2368	A1
2372	A2
2373	A2
2374	A2
2375	A1
2376	A1
2377	A2
3347	A2
3348	A2
3349	A2
3350	A2
3351	A2
3352	A2
3353	A2
3354	A2
3355	A2
3356	A2
3357	A2
3358	A2
3368	A2
3369	A2
3370	A2
3371	A2
3373	A1
3376	A2
3378	A1
3379	A2
3382	A2
3383	A2
3384	A1
3386	A2
3387	A2
3390	A1
3391	A1
3392	A1
3393	A2
4311	A2
6332	A2
6361	A2
6362	A2
6364	A2
6365	A2
7331	A2
7332	A2
7333	A2

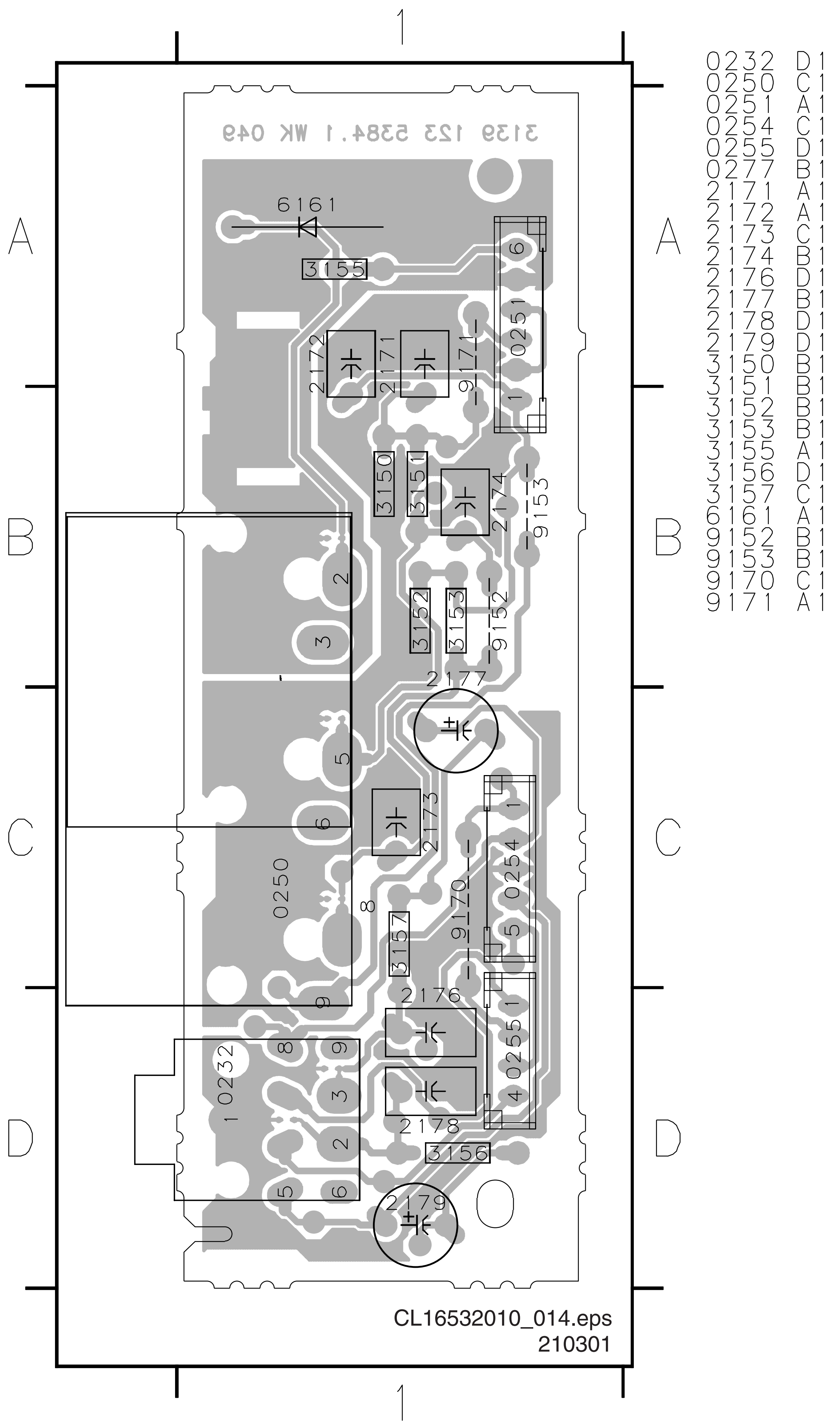


Side AV + HP Panel

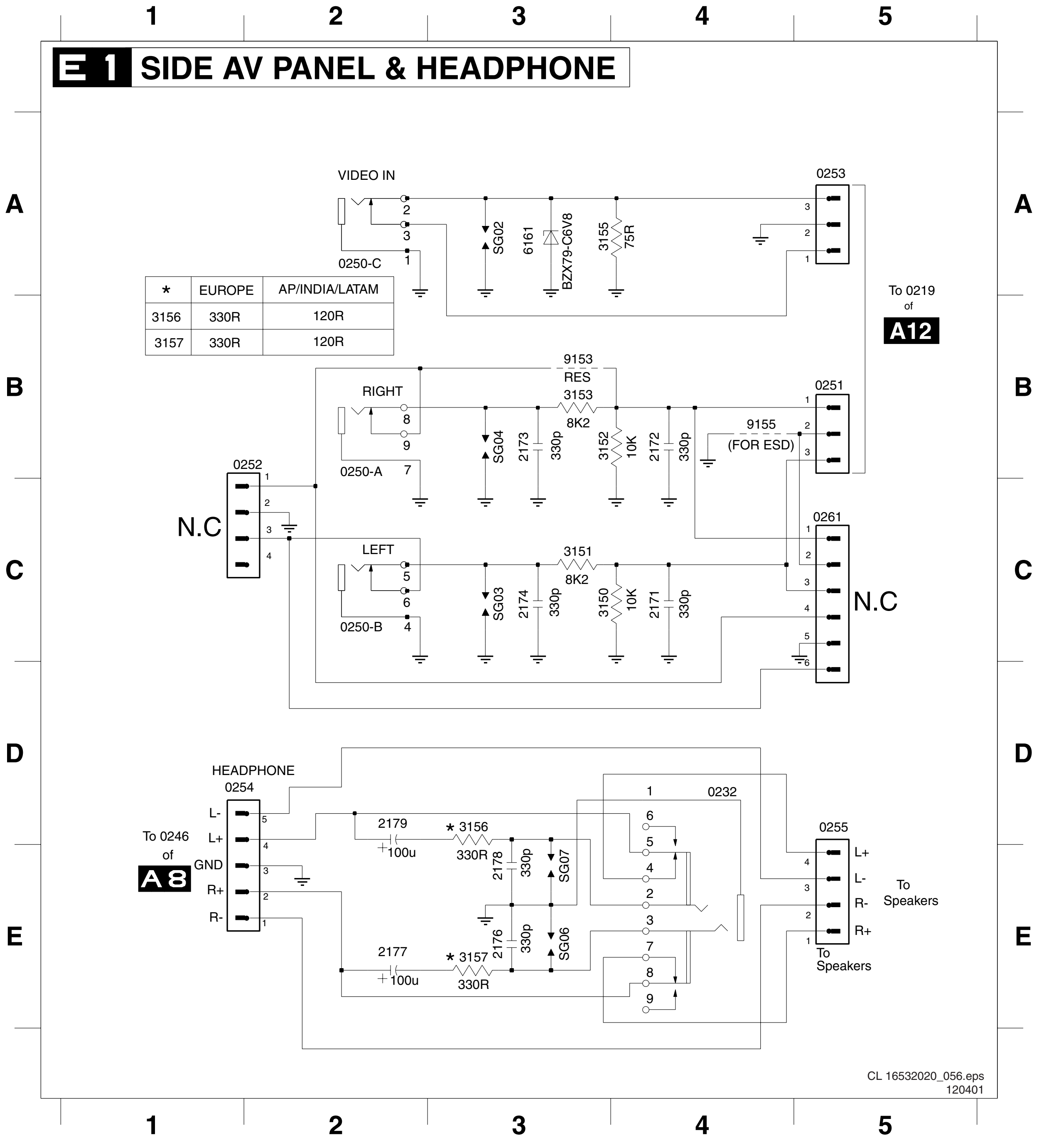

1 2 3 4 5 6
A B C D E F
C SIDE AV + HP PANEL
VIDEO IN
0277-A
0250-C
SG02
6161
BZX79-C6V8
3155
75R
0251
TO
0219
OF
A12
RIGHT
0250-A
9153
RES
3153
8K2
SG04
2173
RES
3152
10K
2172
330p
9152
RES
LEFT
0277-B
0250-B
3151
8K2
SG03
2174
RES
3150
10K
2171
330p
HEADPHONE
0254
TO
0246
OF
A8
L-
L+
GND
R+
R-
2179
100u
3156
330R
2178
330p
SG07
0232
2177
100u
3157
330R
2176
330p
SG06
0255
L+
L-
R-
R+
To
Speakers
CL 16532020_057.eps
050601

Layout Side AV + HP Panel (Top Side)

0232	E5
0250-A	C2
0250-B	D2
0250-C	B2
0251	A5
0254	E2
0255	E5
0277-A	B1
0277-B	D1
2171	D4
2172	C4
2173	C4
2174	D4
2176	F3
2177	F3
2178	E3
2179	E3
3150	D4
3151	D4
3152	C4
3153	B4
3155	B4
3156	E3
3157	F3
6161	B4
9152	C3
9153	B4
SG02	B3
SG03	D3
SG04	C3
SG06	F4
SG07	E4


1
A B C D
3139 123 5384.1 WK 049
6161
3155
0251
2172
2171
9171
3150
3151
2174
9153
3152
3153
9152
2177
2173
0250
0254
9170
3157
2176
0255
2178
3156
0232
2179
0232 D1
0250 C1
0251 A1
0254 C1
0255 D1
0277 B1
2171 A1
2172 A1
2173 C1
2174 B1
2176 D1
2177 B1
2178 D1
2179 D1
3150 B1
3151 B1
3152 B1
3153 B1
3155 A1
3156 D1
3157 C1
6161 A1
9152 B1
9153 B1
9170 C1
9171 A1
CL16532010_014.eps
210301

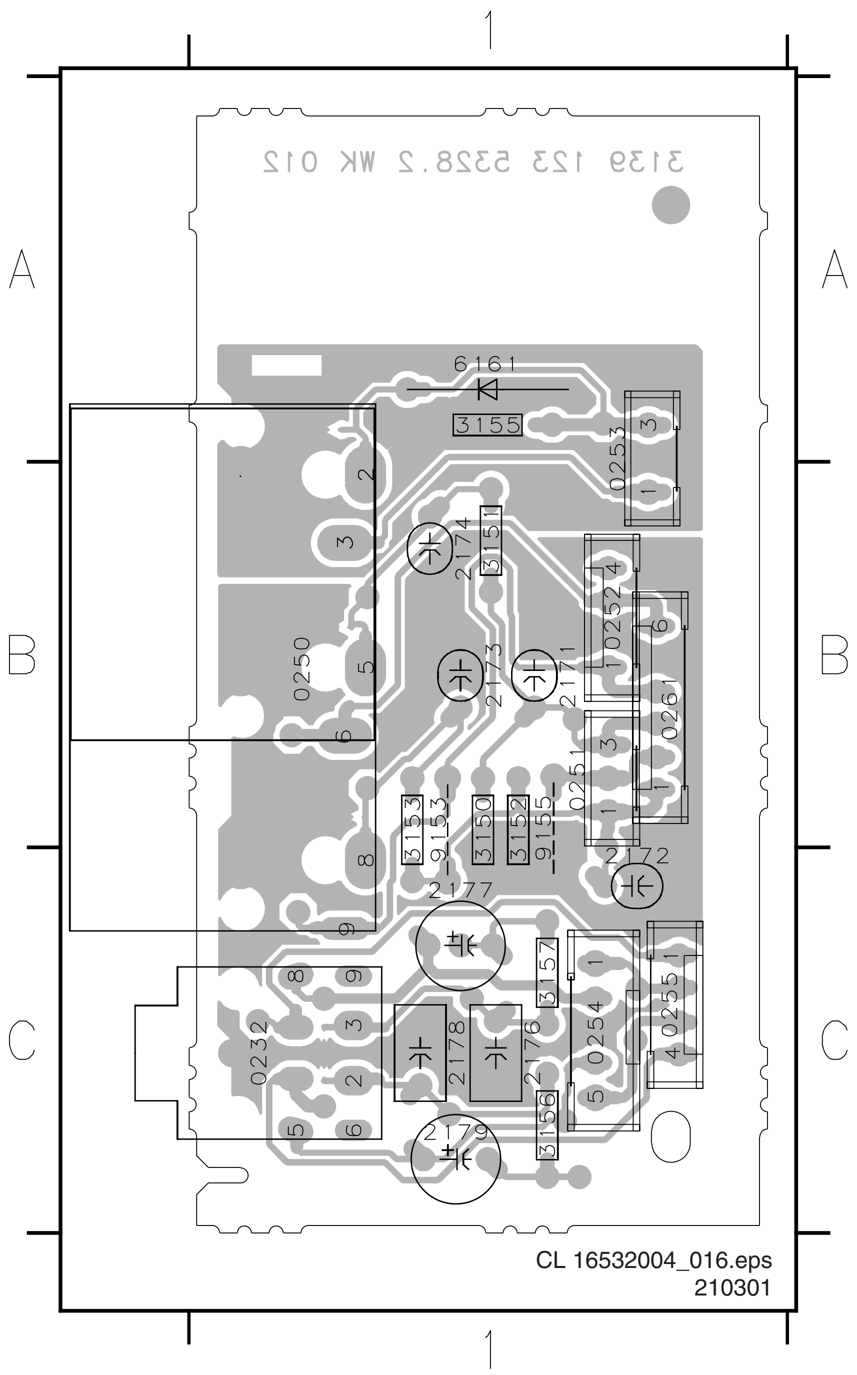
Side AV Panel + Headphone


E 1 SIDE AV PANEL & HEADPHONE
1
2
3
4
5
A
B
C
D
E
VIDEO IN
0250-C
2
3
1
SG02
6161
BZX79-C6V8
3155
75R
0253
3
2
1
To 0219
of
A12
9153
RES
RIGHT
8
9
0250-A
7
3153
8K2
SG04
2173
330p
3152
10K
2172
330p
9155
(FOR ESD)
0251
1
2
3
0252
1
2
3
4
N.C
LEFT
5
6
0250-B
4
3151
8K2
SG03
2174
330p
3150
10K
2171
330p
0261
1
2
3
4
5
6
N.C
HEADPHONE
0254
L-
L+
GND
R+
R-
5
4
3
2
1
To 0246
of
A8
2179
100u
★ 3156
330R
2178
330p
SG07
2177
100u
★ 3157
330R
2176
330p
SG06
0232
1
6
5
4
2
3
7
8
9
0255
4
3
2
1
L+
L-
R-
R+
To
Speakers
To
Speakers
CL 16532020_056.eps
120401

*	EUROPE	AP/INDIA/LATAM
3156	330R	120R
3157	330R	120R

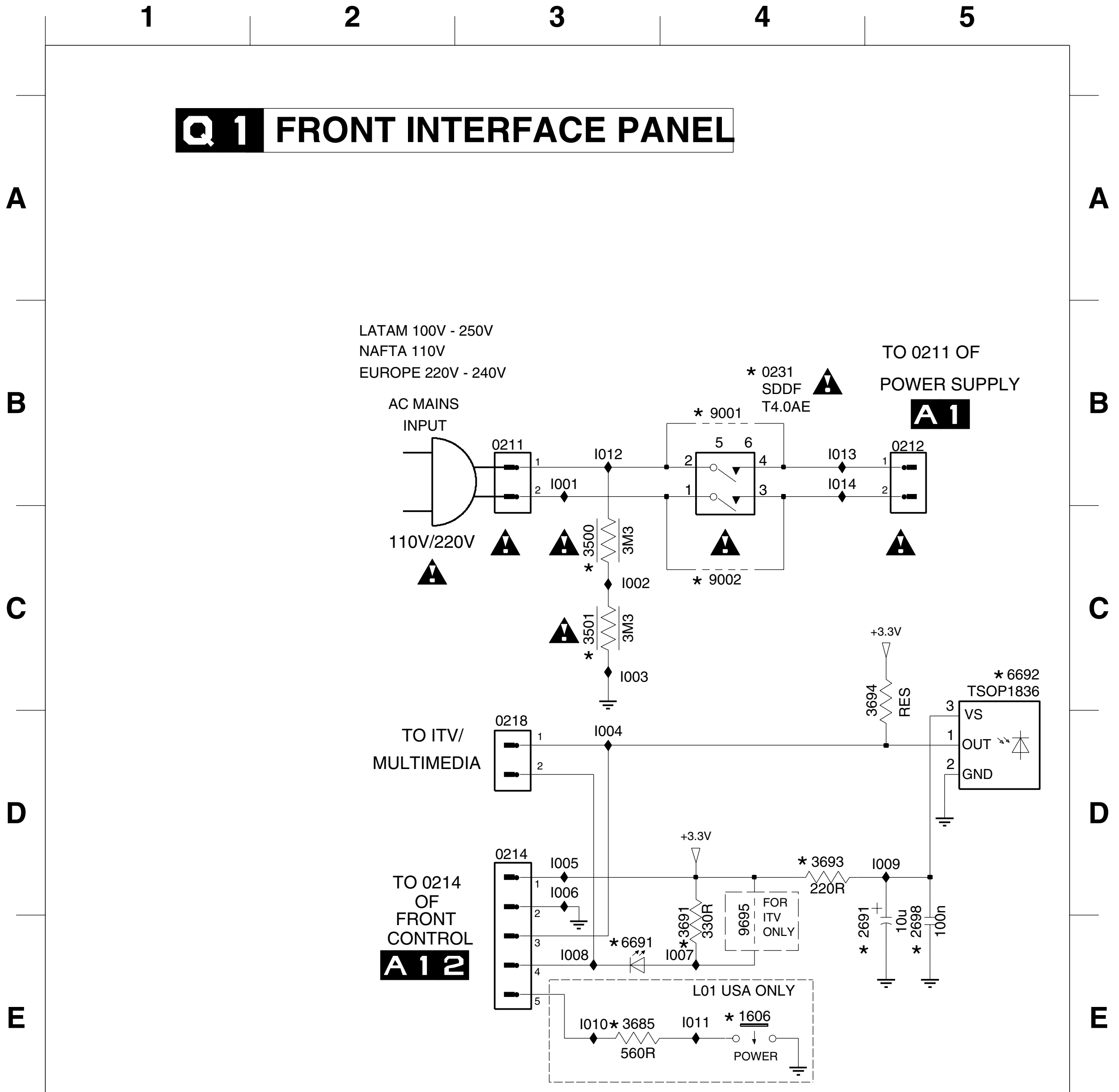
0232	D4
0250-A	B2
0250-B	C2
0250-C	A2
0251	B5
0252	B2
0253	A5
0254	D2
0255	D5
0261	C5
2171	C4
2172	B4
2173	B3
2174	C3
2176	E3
2177	E2
2178	E3
2179	D2
3150	C3
3151	C3
3152	B3
3153	B3
3155	A3
3156	D3
3157	E3
6161	A3
9153	B3
9155	B4
SG02	A3
SG03	C3
SG04	B3
SG06	E3
SG07	E3

Layout Side AV Panel + Headphone (Top Side)


1
A
B
C
3139 123 5328.2 WK 012
6161
3155
0253
3
1
2
3
0250
5
6
8
9
2174
3151
2173
2171
10252 4
6
0261
1
0251
3
3153
9153
3150
3152
9155
2172
2177
8
9
0232
3
2
5
6
2178
2176
3157
0254
5
1
0255
4
1
2179
3156
CL 16532004_016.eps
210301

M16	B1
0232	C1
0250	B1
0251	B1
0252	B1
0253	A1
0254	C1
0255	C1
0261	B1
2171	B1
2172	C1
2173	B1
2174	B1
2176	C1
2177	C1
2178	C1
2179	C1
3150	B1
3151	B1
3152	B1
3153	B1
3155	A1
3156	C1
3157	C1
6161	A1
9153	B1
9155	B1

Front Interface Panel


1
2
3
4
5
A
B
C
D
E
F
G
H
Q 1 FRONT INTERFACE PANEL
LATAM 100V - 250V
NAFTA 110V
EUROPE 220V - 240V
AC MAINS
INPUT
110V/220V
0211
I001
I012
3500
3M3
I002
3501
3M3
I003
∗ 9001
5 6
2 4
1 3
∗ 9002
∗ 0231
SDDF
T4.0AE
I013
I014
0212
TO 0211 OF
POWER SUPPLY
A 1
+3.3V
3694
RES
∗ 6692
TSOP1836
VS
OUT
GND
0218
TO ITV/
MULTIMEDIA
I004
0214
TO 0214
OF
FRONT
CONTROL
A 1 2
I005
I006
+3.3V
∗ 6691
I008
∗ 3691
330R
I007
9695
FOR
ITV
ONLY
∗ 3693
220R
I009
∗ 2691
10u
∗ 2698
100n
L01 USA ONLY
I010 ∗ 3685
560R
I011
∗ 1606
POWER

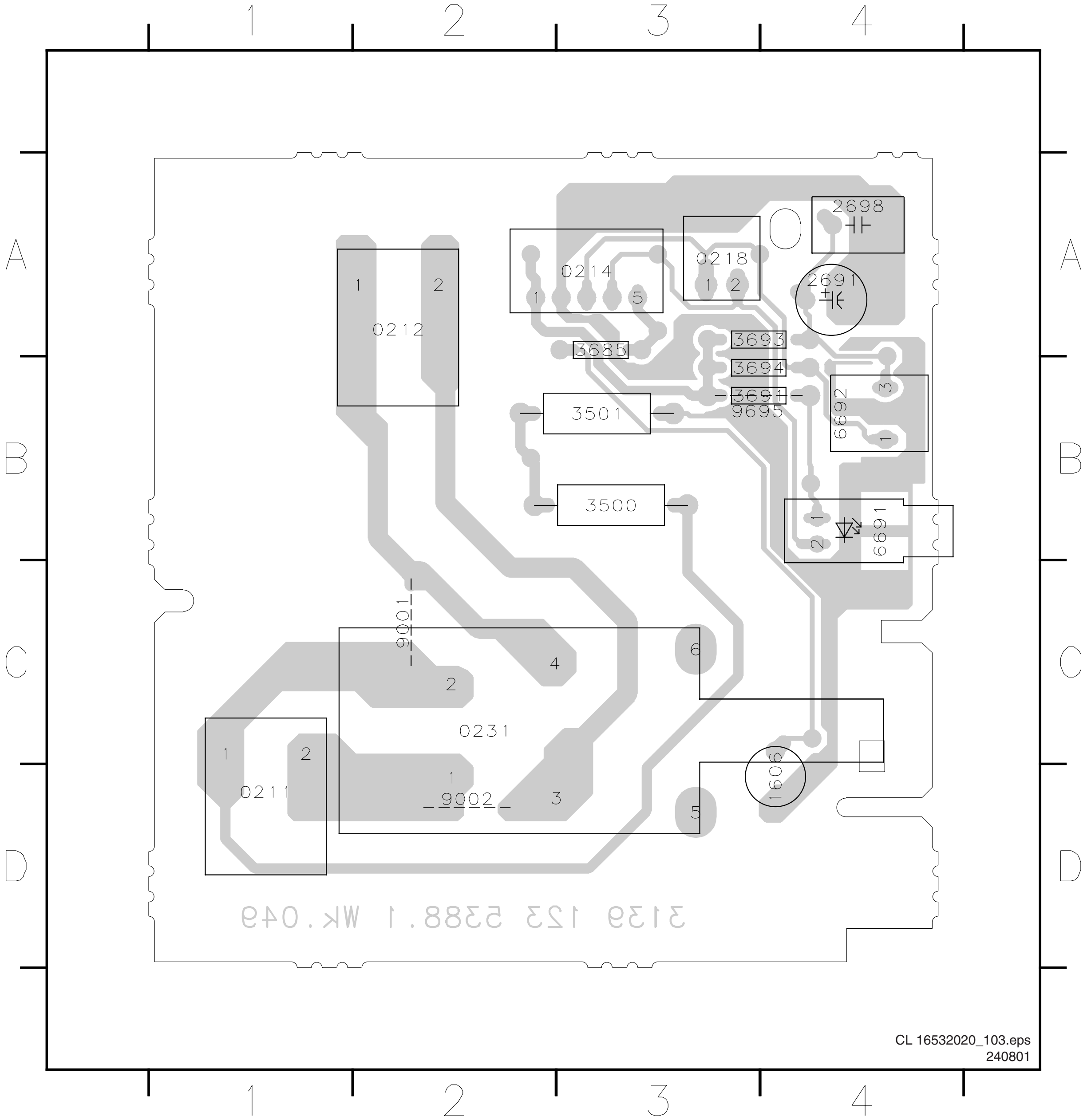
ITEM	KEYBOARD IR+LED-GL	KEYBOARD IR+LED-NA	IR+LED-NA	IR+LED EU/AP	FRNT.INTERF AP	TOP CTL + FR.PL INTERF - EU/NA
0231	2P 8/128A SDKV	-	-	2P 8/128A SDKV	-	-
9001	-	YES	YES	-	YES	YES
9002	-	YES	YES	-	YES	YES

ITEM	FRNT INTERF. - SLIM EU / LA	FRNT INTERF. - SLIM NA	FRNT INTERF. - SLIM EU NON ULL01L
0231	YES	---	YES
1606	---	YES	---
2691	YES	YES	---
2698	YES	YES	---
3500	YES	YES	---
3501	YES	YES	---
3685	---	YES	---
3691	YES	YES	---
3693	YES	YES	---
6691	YES	YES	---
6692	YES	YES	---
9901	---	YES	---
9002	---	YEs	---

CL 16532101_018.eps
230801

0211	B3
0212	B5
0214	D3
0218	D3
0231	B4
1606	E4
2691	E5
2698	E5
3500	C3
3501	C3
3685	E4
3691	E4
3693	D5
3694	C5
6691	E4
6692	C6
9001	B4
9002	C4
9695	E4
I001	B3
I002	C4
I003	C4
I004	D4
I005	D3
I006	D3
I007	E4
I008	E3
I009	D5
I010	E3
I011	E4
I012	B4
I013	B5
I014	B5

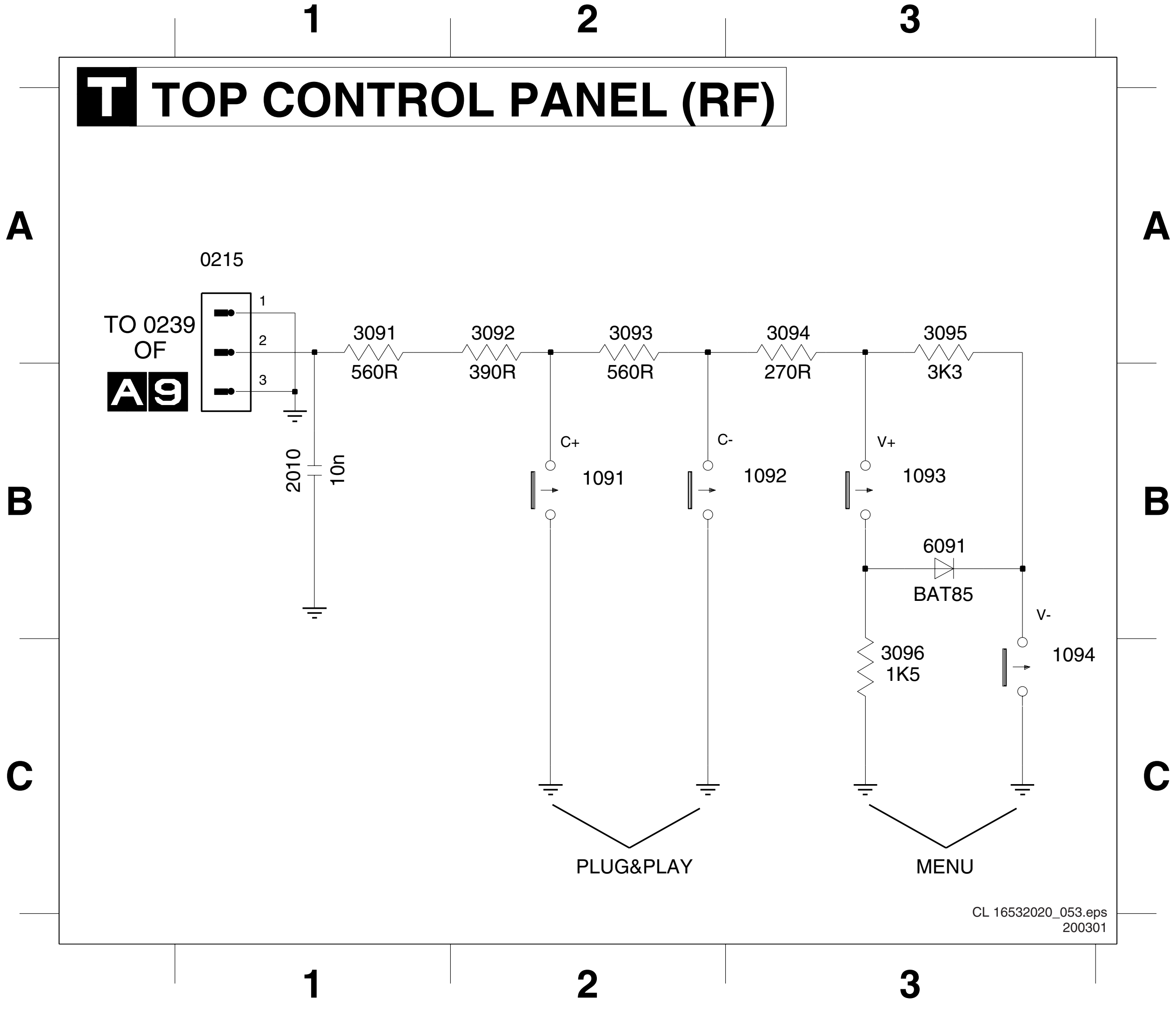
Layout Front Interface Panel (Top Side)


1
2
3
4
A
B
C
D
0214
0218
2698
2691
0212
3685
3693
3694
3691
9695
3501
6692
3500
6691
9001
0231
0211
9002
1606
3139 123 5388.1 WK.049

CL 16532020_103.eps
240801

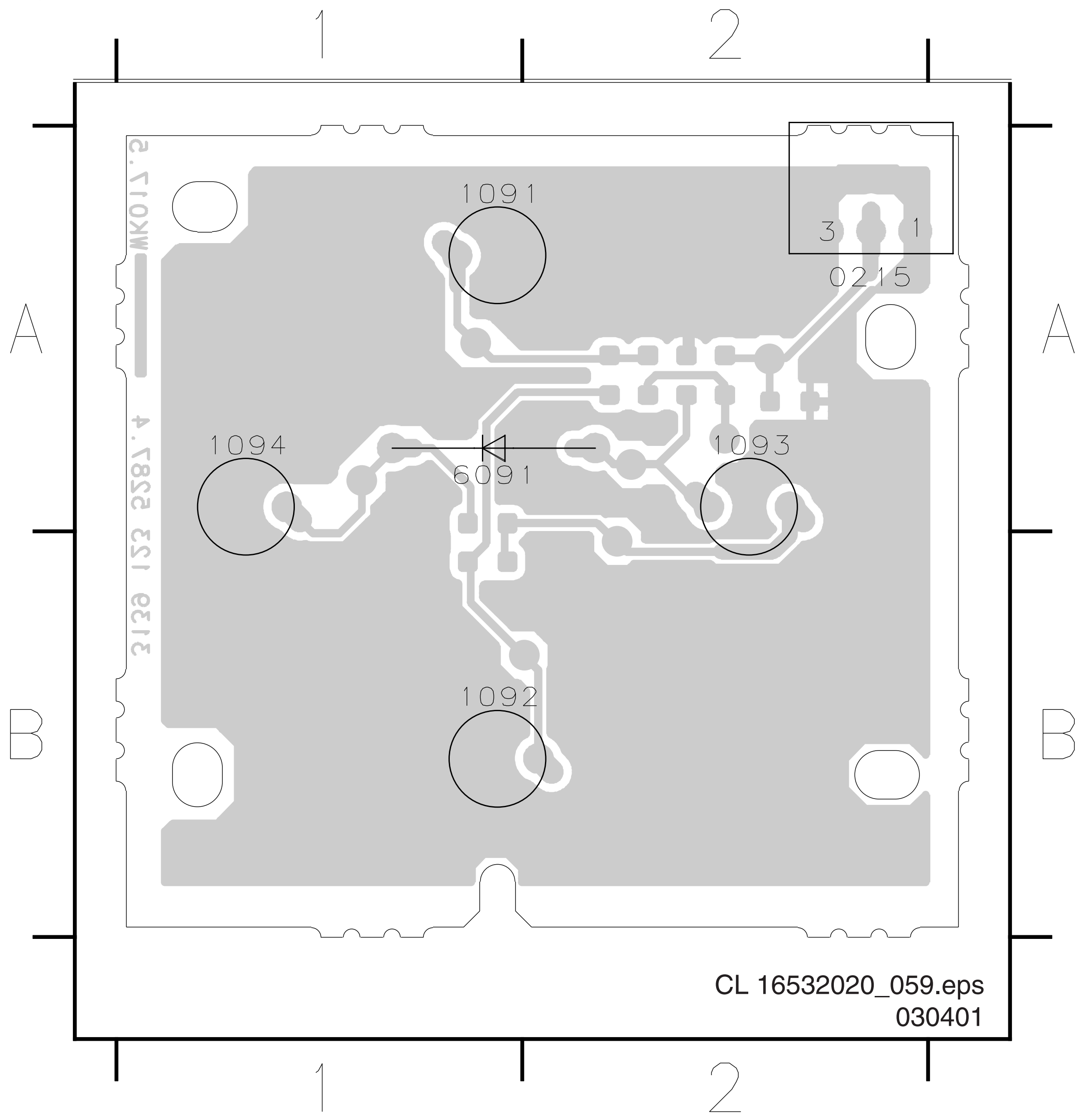
0211	C1
0212	A2
0214	A3
0218	A3
0231	C3
1606	D4
2691	A4
2698	A4
3500	B3
3501	B3
3685	A3
3691	B3
3693	A3
3694	B3
6691	B4
6692	B4
9001	C2
9002	D2
9695	B3

Top Control Panel (RF)


1
2
3
A
B
C
T TOP CONTROL PANEL (RF)
0215
TO 0239
OF
A9
1
2
3
3091
560R
3092
390R
3093
560R
3094
270R
3095
3K3
2010
10n
C+
1091
C-
1092
V+
1093
6091
BAT85
V-
1094
3096
1K5
PLUG&PLAY
MENU
CL 16532020_053.eps
200301

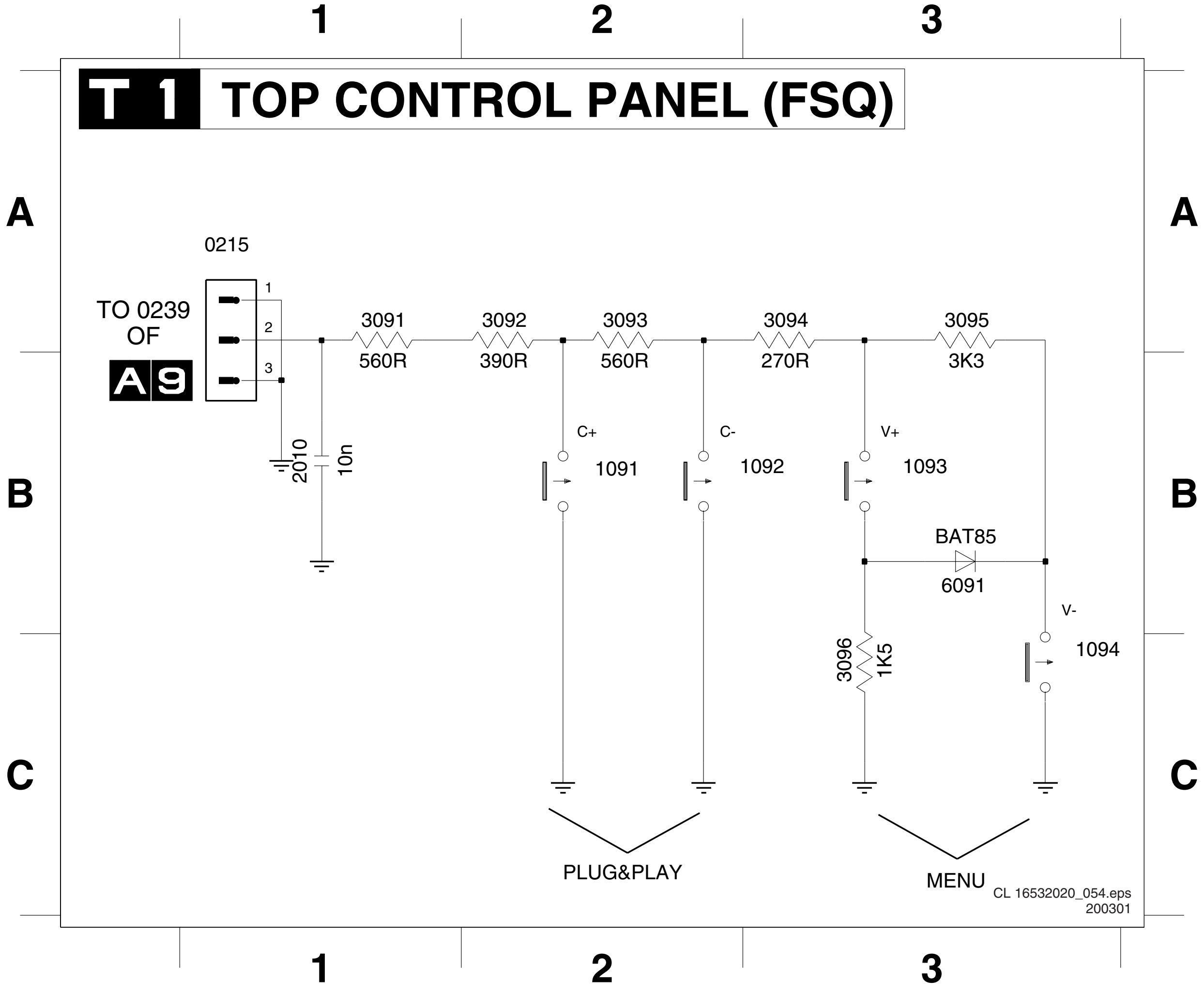
0215	A1
1091	B2
1092	B3
1093	B3
1094	C3
2010	B1
3091	A1
3092	A2
3093	A2
3094	A3
3095	A3
3096	C3
6091	B3

Layout Top Control Panel (RF) (Top Side)


1
2
A
B
1091
1094
1093
1092
6091
0215
3
1
CL 16532020_059.eps
030401

1091	A1
1092	B1
1093	A2
1094	A1
6091	A1

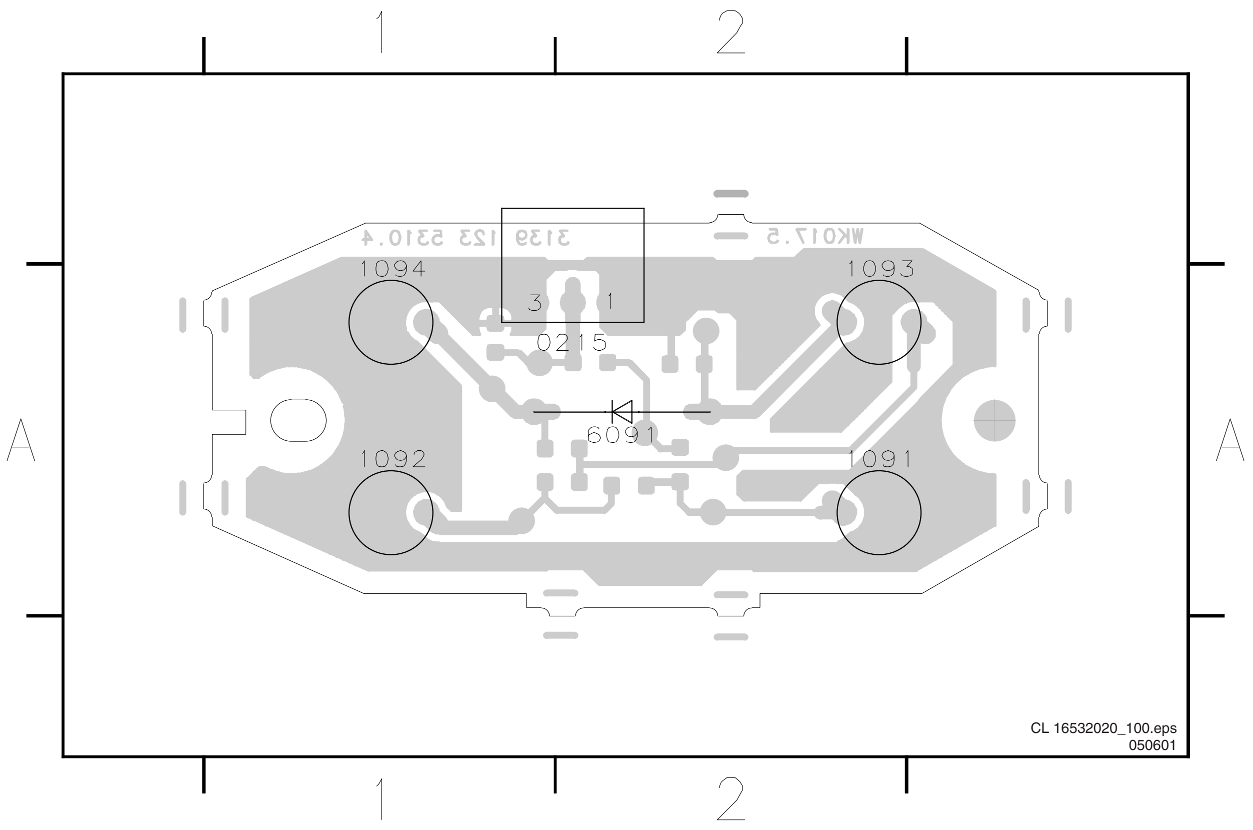
Top Control Panel (FSQ)


1
2
3
A
B
C
T 1
TOP CONTROL PANEL (FSQ)
0215
TO 0239 OF
A9
1
2
3
3091
560R
3092
390R
3093
560R
3094
270R
3095
3K3
2010
10n
C+
1091
C-
1092
V+
1093
BAT85
6091
V-
1094
3096
1K5
PLUG&PLAY
MENU

CL 16532020_054.eps
200301

0215	**A1**
1091	**B2**
1092	**B3**
1093	**B3**
1094	**C3**
2010	**B1**
3091	**A1**
3092	**A2**
3093	**A2**
3094	**A3**
3095	**A3**
3096	**C3**
6091	**B3**

Layout Top Control Panel (FSQ) (Top Side)


1
2
A
3139 123 5310.4
WK017.5
1094
1093
3
1
0215
6091
1092
1091

CL 16532020_100.eps
050601

0215	A2
1091	A2
1092	A1
1093	A2
1094	A1
6091	A2